

Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

2L 20379

Cert ID	19355
BOL#	S121943
Date	4/10/2013
Customer PO	14864
Pipe Sales Order	37923

Page 5 of 5

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFV

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1215	4973	0.93	70870	76410	23	93	Transverse/Body/Strip	As Rolled	1.5						
				79190			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1215	Heat	0.050	0.36	0.007	0.003	0.232	0.140	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.38	0.007	0.003	0.224	0.145	0.054	0.041	0.011	0.003	0.009	0.000	0.000	0.09
2	Product	0.047	0.38	0.006	0.002	0.227	0.138	0.053	0.036	0.011	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-TC1211	4973	0.92	70670	77170	24	93	Transverse/Body/Strip	As Rolled	1.5						
				77170			Transverse/Weld/Strip								

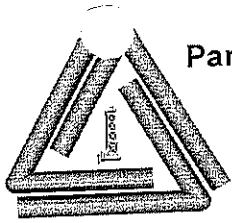
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-TC1211	Heat	0.050	0.40	0.008	0.002	0.251	0.160	0.060	0.050	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.41	0.008	0.002	0.265	0.153	0.060	0.050	0.013	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.41	0.008	0.002	0.247	0.160	0.061	0.049	0.013	0.002	0.009	0.000	0.000	0.09

DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control  
Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

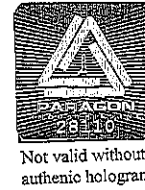
Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



20 -19969

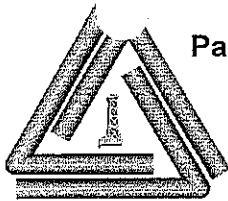
Cert ID	18944
BOL#	S121340
Date	3/14/2013
Customer PO	14864
Pipe Sales Order	37874

Page 1 of 2

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: HFV

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIX52PSL-2 M				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
3000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A		Pcm			
MECHANICAL PROPERTIES												CHARPY IMPACT TEST			
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6549	4931	0.94	71130	75890	27	92	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	174.0	175.3	100.0%		
											174.0				
											178.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6549	Heat	0.040	0.98	0.010	0.002	0.205	0.120	0.040	0.060	0.010	0.002	0.013	0.010	0.000	
1	Product	0.033	0.92	0.007	0.001	0.182	0.118	0.043	0.053	0.010	0.003	0.011	0.008	0.000	0.10
2	Product	0.031	0.92	0.007	0.001	0.185	0.115	0.043	0.053	0.010	0.004	0.011	0.009	0.000	0.09
MECHANICAL PROPERTIES												CHARPY IMPACT TEST			
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6550	4931	0.94	70140	74320	32	92	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	172.0	172.0	100.0%		
											172.0				
											172.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6550	Heat	0.040	0.95	0.012	0.001	0.203	0.120	0.040	0.050	0.010	0.002	0.012	0.010	0.000	
1	Product	0.032	0.91	0.008	0.000	0.187	0.116	0.041	0.049	0.011	0.004	0.011	0.009	0.000	0.09
2	Product	0.033	0.93	0.007	0.000	0.177	0.121	0.041	0.048	0.011	0.004	0.012	0.009	0.000	0.10



Paragon Industries, Inc.

# MATERIAL TEST REPORT

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Not valid without authentic hologram

20 19969

Cert ID	18944
BOL#	S121340
Date	3/14/2013
Customer PO	14864
Pipe Sales Order	37874

Page 2 of 2

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										CHARPY IMPACT TEST					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6551	4931	0.95	74170	78410	30	91	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	116.0	151.3	100.0%		
				77640			Transverse/Weld/Strip				176.0				
											162.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6551	Heat	0.060	0.97	0.011	0.002	0.189	0.130	0.040	0.050	0.010	0.002	0.013	0.010	0.000	
1	Product	0.044	0.94	0.007	0.001	0.177	0.124	0.041	0.048	0.011	0.004	0.011	0.008	0.000	0.11
2	Product	0.036	0.94	0.007	0.000	0.180	0.124	0.041	0.049	0.011	0.004	0.012	0.009	0.000	0.10

DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

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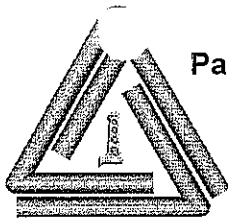
Quality Assurance

*BART TURNER*

Metallurgist

Comments:

Empty box for comments



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20 20041

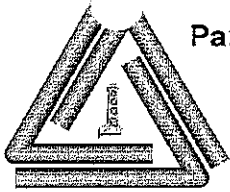
Cert ID	19015
BOL#	S121433
Date	3/19/2013
Customer PO	14864
Pipe Sales Order	37874

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: HFW

Page 1 of 2

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIX52PSL-2 M				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
3000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES										CHARPY IMPACT TEST					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6549	4931	0.94	71130	75890	27	92	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	174.0	175.3	100.0%		
				78760			Transverse/Weld/Strip				174.0				
											178.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6549	Heat	0.040	0.98	0.010	0.002	0.205	0.120	0.040	0.060	0.010	0.002	0.013	0.010	0.000	
1	Product	0.033	0.92	0.007	0.001	0.182	0.118	0.043	0.053	0.010	0.003	0.011	0.008	0.000	0.10
2	Product	0.031	0.92	0.007	0.001	0.185	0.115	0.043	0.053	0.010	0.004	0.011	0.009	0.000	0.09
MECHANICAL PROPERTIES										CHARPY IMPACT TEST					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6550	4931	0.94	70140	74320	32	92	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	172.0	172.0	100.0%		
				82600			Transverse/Weld/Strip				172.0				
											172.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6550	Heat	0.040	0.95	0.012	0.001	0.203	0.120	0.040	0.050	0.010	0.002	0.012	0.010	0.000	
1	Product	0.032	0.91	0.008	0.000	0.187	0.116	0.041	0.049	0.011	0.004	0.011	0.009	0.000	0.09
2	Product	0.033	0.93	0.007	0.000	0.177	0.121	0.041	0.048	0.011	0.004	0.012	0.009	0.000	0.10



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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20 20041

Cert ID	19015
BOL#	S121433
Date	3/19/2013
Customer PO	14864
Pipe Sales Order	37874

Page 2 of 2

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: HFW

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MECHANICAL PROPERTIES										CHARPY IMPACT TEST					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6551	4931	0.95	74170	78410	30	91	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	116.0	151.3	100.0%		
				77640			Transverse/Weld/Strip				176.0				
											162.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6551	Heat	0.060	0.97	0.011	0.002	0.189	0.130	0.040	0.050	0.010	0.002	0.013	0.010	0.000	
1	Product	0.044	0.94	0.007	0.001	0.177	0.124	0.041	0.048	0.011	0.004	0.011	0.008	0.000	0.11
2	Product	0.036	0.94	0.007	0.000	0.180	0.124	0.041	0.049	0.011	0.004	0.012	0.009	0.000	0.10

DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

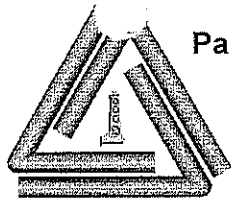
Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments:

Empty box for comments



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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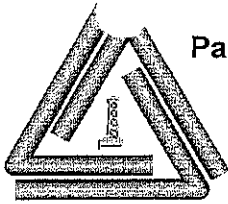
20 20009

Cert ID	18983
BOL#	s121393
Date	3/15/2013
Customer PO	14864
Pipe Sales Order	37874

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIX52PSL-2 M				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
3000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES										CHARPY IMPACT TEST					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6549	4931	0.94	71130	75890	27	92	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	174.0	175.3	100.0%		
				78760			Transverse/Weld/Strip				174.0				
											178.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6549	Heat	0.040	0.98	0.010	0.002	0.205	0.120	0.040	0.060	0.010	0.002	0.013	0.010	0.000	
1	Product	0.033	0.92	0.007	0.001	0.182	0.118	0.043	0.053	0.010	0.003	0.011	0.008	0.000	0.10
2	Product	0.031	0.92	0.007	0.001	0.185	0.115	0.043	0.053	0.010	0.004	0.011	0.009	0.000	0.09
MECHANICAL PROPERTIES										CHARPY IMPACT TEST					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6550	4931	0.94	70140	74320	32	92	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	172.0	172.0	100.0%		
				82600			Transverse/Weld/Strip				172.0				
											172.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6550	Heat	0.040	0.95	0.012	0.001	0.203	0.120	0.040	0.050	0.010	0.002	0.012	0.010	0.000	
1	Product	0.032	0.91	0.008	0.000	0.187	0.116	0.041	0.049	0.011	0.004	0.011	0.009	0.000	0.09
2	Product	0.033	0.93	0.007	0.000	0.177	0.121	0.041	0.048	0.011	0.004	0.012	0.009	0.000	0.10



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20 2009

Cert ID	18983
BOL#	s121393
Date	3/15/2013
Customer PO	14864
Pipe Sales Order	37874

Page 2 of 2

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										CHARPY IMPACT TEST					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width	Pipe Body @+32F 20 ft-lbf Min.	ft-lbs	Impact Avg.	Shear Avg.		
322-NB6551	4931	0.95	74170	78410	30	91	Transverse/Body/Strip	As Rolled	1.5	Transverse 3/4 Size	116.0	151.3	100.0%		
				77640			Transverse/Weld/Strip				176.0				
											162.0				
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NB6551	Heat	0.060	0.97	0.011	0.002	0.189	0.130	0.040	0.050	0.010	0.002	0.013	0.010	0.000	
1	Product	0.044	0.94	0.007	0.001	0.177	0.124	0.041	0.048	0.011	0.004	0.011	0.008	0.000	0.11
2	Product	0.036	0.94	0.007	0.000	0.180	0.124	0.041	0.049	0.011	0.004	0.012	0.009	0.000	0.10

DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

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Quality Assurance

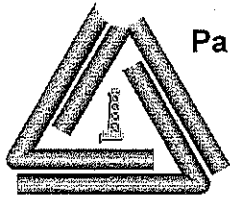
*Bart Turner*

Metallurgist

*[Signature]*

Comments:

Empty box for comments



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

2013-20057

Cert ID	19144
BOL#	S121453
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 2 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5					
				81430			Transverse/Weld/Strip								

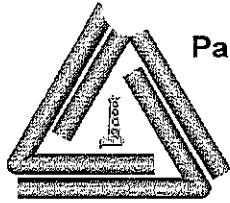
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5					
				79790			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0747	4973	0.94	71620	76000	26	93	Transverse/Body/Strip		As Rolled	1.5					
				78140			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

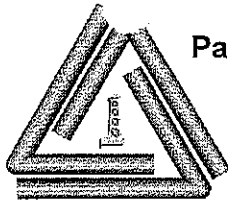
201 20057

Cert ID	19144
BOL#	S121453
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 1 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 AP1BPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730	27	93	Transverse/Body/Strip		As Rolled	1.5					
				77390			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0743	4973	0.93	73320	79170	24	93	Transverse/Body/Strip		As Rolled	1.5					
				79690			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0743	Heat	0.050	0.39	0.013	0.002	0.242	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.047	0.41	0.011	0.001	0.236	0.125	0.055	0.057	0.011	0.002	0.010	0.000	0.000	0.09
2	Product	0.049	0.41	0.011	0.002	0.231	0.129	0.056	0.058	0.011	0.002	0.010	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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201 20057

Cert ID	19144
BOL#	S121453
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 3 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK	
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width		
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip	As Rolled	1.5		
				78310			Transverse/Weld/Strip				

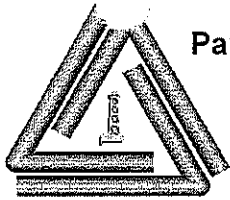
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK	
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width		
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip	As Rolled	1.5		
				83520			Transverse/Weld/Strip				

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK	
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width		
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip	As Rolled	1.5		
				81940			Transverse/Weld/Strip				

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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20... 20057

Cert ID	19144
BOL#	S121453
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 4 of 4

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

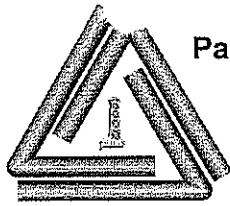
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL 1 MATERIAL WITH ELONGATION EXCEPTION WITH A MINIMUM OF 22.9%.



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

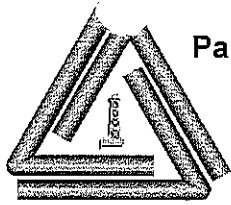
201 20058

Cert ID	19145
BOL#	S121454
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 1 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730 77390	27	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0743	4973	0.93	73320	79170 79690	24	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0743	Heat	0.050	0.39	0.013	0.002	0.242	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.047	0.41	0.011	0.001	0.236	0.125	0.055	0.057	0.011	0.002	0.010	0.000	0.000	0.09
2	Product	0.049	0.41	0.011	0.002	0.231	0.129	0.056	0.058	0.011	0.002	0.010	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



20... 20058

Cert ID	19145
BOL#	S121454
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 2 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80610			Transverse/Weld/Strip									

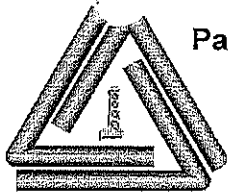
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5						
				81430			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5						
				79790			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



20-20058

Cert ID	19145
BOL#	S121454
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 3 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0747	4973	0.94	71620	76000 78140	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5						

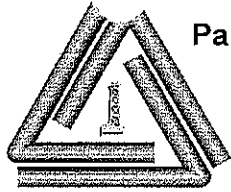
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080 79360	27	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5						

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850 78310	27	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5						

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20 20058

Cert ID	19145
BOL#	S121454
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 4 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip	As Rolled	1.5						
				83520			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip	As Rolled	1.5						
				81940			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08

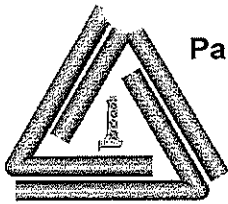
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL 1 MATERIAL WITH ELONGATION EXCEPTION WITH A MINIMUM OF 22.9%.



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



2013-20075

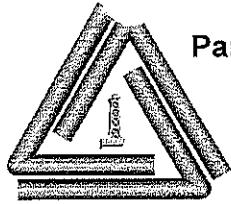
Cert ID	19146
BOL#	S121472
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 1 of 4

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730	27	93	Transverse/Body/Strip		As Rolled	1.5					
				77390			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5					
				80610			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

2013 20075

Cert ID	19146
BOL#	S121472
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 2 of 4

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5						
				81430			Transverse/Weld/Strip									

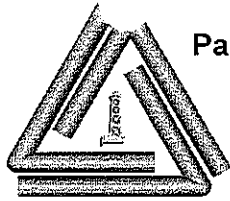
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5						
				79790			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0747	4973	0.94	71620	76000	26	93	Transverse/Body/Strip		As Rolled	1.5						
				78140			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



2010020075

Cert ID	19146
BOL#	S121472
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 3 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080	27	93	Transverse/Body/Strip		As Rolled	1.5						
				79360			Transverse/Weld/Strip									

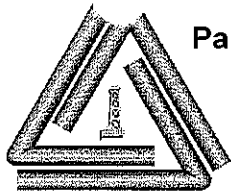
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip		As Rolled	1.5						
				78310			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip		As Rolled	1.5						
				83520			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



20-20075

Cert ID	19146
BOL#	S121472
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 4 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip		As Rolled	1.5						
				81940			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	0.92	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77030			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09

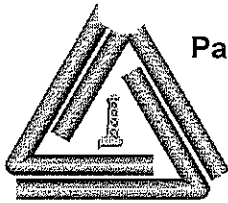
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL 1 MATERIAL WITH ELONGATION EXCEPTION WITH A MINIMUM OF 22.9%.



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

2013-20085

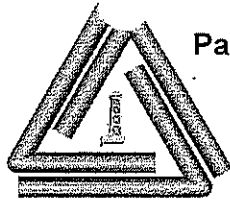
Cert ID	19147
BOL#	S121491
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 1 of 3

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

<b>Customer:</b> Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				<b>Product:</b> 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				<b>Specification:</b> API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
<b>Hydrostatic Test psi</b>		<b>Flattening Test</b>		<b>Ultrasonic Weldline (NDT)</b>		<b>Full Length Visual</b>		<b>Full Length Drift</b>		<b>Heat Treat Min. Temperature</b>		<b>CE-Formula</b>			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
<b>MECHANICAL PROPERTIES</b>											<b>BLANK</b>				
<b>Heat Number</b>	<b>Steel PO #</b>	<b>Y/T Ratio</b>	<b>Yield Strength psi</b>	<b>Tensile Strength psi</b>	<b>Elong. % in 2 inches</b>	<b>Hardness HRB (Max)</b>	<b>Test Type Orientation/Tensile</b>		<b>Test Condition</b>	<b>Gauge Width</b>					
322-NC0744	4973	0.94	70640	75190 80610	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
<b>CHEMICAL ANALYSIS %</b>															
<b>Heat Number</b>	<b>Type</b>	<b>C</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Si</b>	<b>Cu</b>	<b>Ni</b>	<b>Cr</b>	<b>Mo</b>	<b>V</b>	<b>Nb</b>	<b>Ti</b>	<b>B</b>	<b>CE-0.25% Max</b>
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09
<b>MECHANICAL PROPERTIES</b>											<b>BLANK</b>				
<b>Heat Number</b>	<b>Steel PO #</b>	<b>Y/T Ratio</b>	<b>Yield Strength psi</b>	<b>Tensile Strength psi</b>	<b>Elong. % in 2 inches</b>	<b>Hardness HRB (Max)</b>	<b>Test Type Orientation/Tensile</b>		<b>Test Condition</b>	<b>Gauge Width</b>					
322-NC0747	4973	0.94	71620	76000 78140	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
<b>CHEMICAL ANALYSIS %</b>															
<b>Heat Number</b>	<b>Type</b>	<b>C</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Si</b>	<b>Cu</b>	<b>Ni</b>	<b>Cr</b>	<b>Mo</b>	<b>V</b>	<b>Nb</b>	<b>Ti</b>	<b>B</b>	<b>CE-0.25% Max</b>
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20. 20085

Cert ID	19147
BOL#	S121491
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 2 of 3

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080	27	93	Transverse/Body/Strip		As Rolled	1.5						
				79360			Transverse/Weld/Strip									

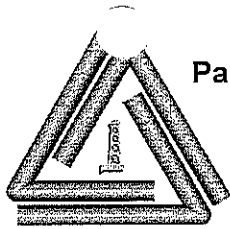
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip		As Rolled	1.5						
				78310			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip		As Rolled	1.5						
				83520			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20. 20085

Cert ID	19147
BOL#	S121491
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 3 of 3

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850 81940	24	93	Transverse/Body/Strip Transverse/Weld/Strip	As Rolled	1.5						

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08

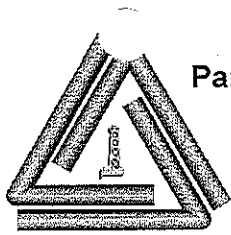
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

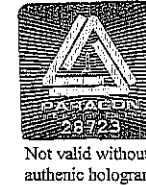
Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL 1 MATERIAL WITH ELONGATION EXCEPTION WITH A MINIMUM OF 22.9%.



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



20120120

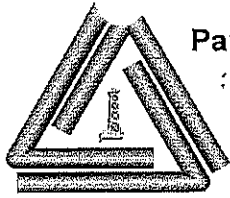
Cert ID	19148
BOL#	S121543
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 1 of 5

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

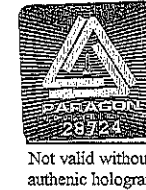
Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test:psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES												BLANK			
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5					
				80610			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09
MECHANICAL PROPERTIES												BLANK			
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5					
				81430			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

20...20120

Cert ID	19148
BOL#	S121543
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 2 of 5

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5						
				79790			Transverse/Weld/Strip									

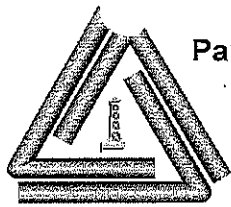
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0747	4973	0.94	71620	76000	26	93	Transverse/Body/Strip		As Rolled	1.5						
				78140			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080	27	93	Transverse/Body/Strip		As Rolled	1.5						
				79360			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

2011 20120

Cert ID	19148
BOL#	S121543
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip	As Rolled	1.5						
				78310			Transverse/Weld/Strip								

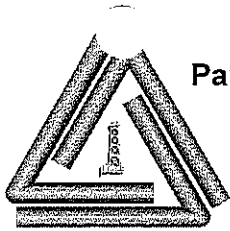
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip	As Rolled	1.5						
				83520			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip	As Rolled	1.5						
				81940			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



2012-20120

Cert ID	19148
BOL#	S121543
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 4 of 5

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1213	4973	0.94	69820	74670	28	93	Transverse/Body/Strip		As Rolled	1.5						
				79240			Transverse/Weld/Strip									

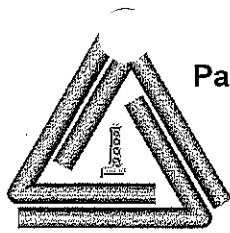
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1213	Heat	0.050	0.38	0.007	0.002	0.252	0.130	0.050	0.040	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.002	0.241	0.131	0.055	0.044	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.242	0.132	0.056	0.045	0.012	0.002	0.010	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	0.92	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77030			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1215	4973	0.93	70870	76410	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79190			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1215	Heat	0.050	0.36	0.007	0.003	0.232	0.140	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.38	0.007	0.003	0.224	0.145	0.054	0.041	0.011	0.003	0.009	0.000	0.000	0.09
2	Product	0.047	0.38	0.006	0.002	0.227	0.138	0.053	0.036	0.011	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20. 20120

Cert ID	19148
BOL#	S121543
Date	3/27/2013
Customer PO	14864
Pipe Sales Order	37923

Page 5 of 5

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-TC1211	4973	0.92	70670	77170 77170	24	93	Transverse/Body/Strip Transverse/Weld/Strip	As Rolled	1.5						

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-TC1211	Heat	0.050	0.40	0.008	0.002	0.251	0.160	0.060	0.050	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.41	0.008	0.002	0.265	0.153	0.060	0.050	0.013	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.41	0.008	0.002	0.247	0.160	0.061	0.049	0.013	0.002	0.009	0.000	0.000	0.09

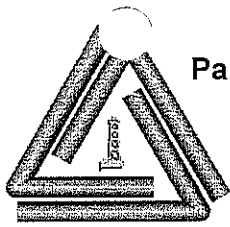
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL 1 MATERIAL WITH ELONGATION EXCEPTION WITH A MINIMUM OF 22.9%.



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

201-20701

Cert ID	41553
BOL#	S122463
Date	4/26/2013
Customer PO	14864
Pipe Sales Order	37923

Page 3 of 6

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0747	4973	71620	76000	26	93	Transverse/Body/Strip		As Rolled	1.5						
			78140			Transverse/Weld/Strip									

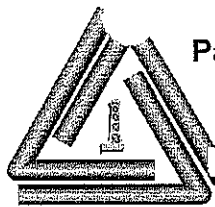
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0748	4973	73250	77080	27	93	Transverse/Body/Strip		As Rolled	1.5						
			79360			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1207	4973	73180	78360	23	93	Transverse/Body/Strip		As Rolled	1.5						
			79390			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201-0701

Cert ID	41553
BOL#	S122463
Date	4/26/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 4 of 6

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1208	4973	68390	78580	26	93	Transverse/Body/Strip		As Rolled	1.5						
			80050			Transverse/Weld/Strip									

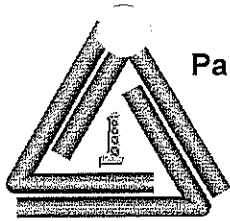
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1208	Heat	0.050	0.38	0.008	0.003	0.243	0.130	0.060	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.40	0.008	0.002	0.230	0.144	0.069	0.048	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.044	0.40	0.007	0.002	0.239	0.139	0.067	0.048	0.013	0.003	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1210	4973	72560	77060	30	93	Transverse/Body/Strip		As Rolled	1.5						
			83520			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1212	4973	70950	76850	24	93	Transverse/Body/Strip		As Rolled	1.5						
			81940			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20701

Cert ID	41553
BOL#	S122463
Date	4/26/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1213	4973	69820	74670	28	93	Transverse/Body/Strip		As Rolled	1.5						
			79240			Transverse/Weld/Strip									

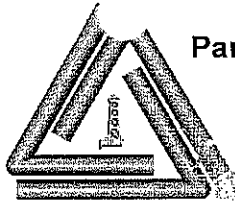
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1213	Heat	0.050	0.38	0.007	0.002	0.252	0.130	0.050	0.040	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.002	0.241	0.131	0.055	0.044	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.242	0.132	0.056	0.045	0.012	0.002	0.010	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
			77030			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1215	4973	70870	76410	23	93	Transverse/Body/Strip		As Rolled	1.5						
			79190			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1215	Heat	0.050	0.36	0.007	0.003	0.232	0.140	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.38	0.007	0.003	0.224	0.145	0.054	0.041	0.011	0.003	0.009	0.000	0.000	0.09
2	Product	0.047	0.38	0.006	0.002	0.227	0.138	0.053	0.036	0.011	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20701

Cert ID	41553
BOL#	S122463
Date	4/26/2013
Customer PO	14864
Pipe Sales Order	37923

Page 6 of 6

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

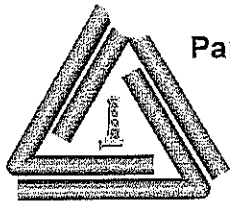
Quality Assurance

*Bart Tunney*

Metallurgist

*[Signature]*

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

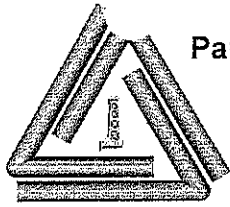
201-0379

Cert ID	19355
BOL#	S121943
Date	4/10/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFV

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730	27	93	Transverse/Body/Strip		As Rolled	1.5					
				77390			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0742	4973	0.95	69700	73060	26	93	Transverse/Body/Strip		As Rolled	1.5					
				79030			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 0379

Cert ID	19355
BOL#	S121943
Date	4/10/2013
Customer PO	14864
Pipe Sales Order	37923

Page 2 of 5

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

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MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80610			Transverse/Weld/Strip									

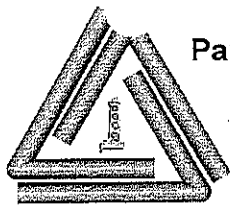
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5						
				81430			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5						
				79790			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201-0379

Cert ID	19355
BOL#	S121943
Date	4/10/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080	27	93	Transverse/Body/Strip		As Rolled	1.5						
				79360			Transverse/Weld/Strip									

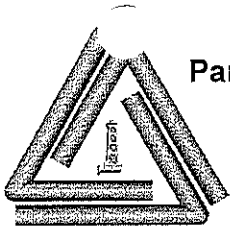
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip		As Rolled	1.5						
				78310			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1207	4973	0.93	73180	78360	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79390			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20379

Cert ID	19355
BOL#	S121943
Date	4/10/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1209	4973	0.93	73290	78790	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77840			Transverse/Weld/Strip									

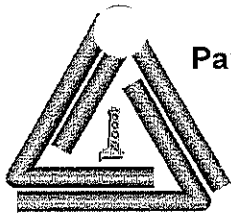
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1209	Heat	0.050	0.38	0.008	0.002	0.253	0.170	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.046	0.40	0.008	0.002	0.244	0.167	0.062	0.047	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.048	0.39	0.008	0.002	0.244	0.170	0.061	0.046	0.011	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1213	4973	0.94	69820	74670	28	93	Transverse/Body/Strip		As Rolled	1.5						
				79240			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1213	Heat	0.050	0.38	0.007	0.002	0.252	0.130	0.050	0.040	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.002	0.241	0.131	0.055	0.044	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.242	0.132	0.056	0.045	0.012	0.002	0.010	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	0.92	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77030			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

20 20582

Cert ID	19569
BOL#	S122250
Date	4/19/2013
Customer PO	14864
Pipe Sales Order	37923

Page 6 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	0.92	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77030			Transverse/Weld/Strip									

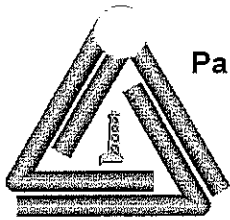
CHEMICAL ANALYSIS-%															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1215	4973	0.93	70870	76410	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79190			Transverse/Weld/Strip									

CHEMICAL ANALYSIS-%															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1215	Heat	0.050	0.36	0.007	0.003	0.232	0.140	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.38	0.007	0.003	0.224	0.145	0.054	0.041	0.011	0.003	0.009	0.000	0.000	0.09
2	Product	0.047	0.38	0.006	0.002	0.227	0.138	0.053	0.036	0.011	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-TC1211	4973	0.92	70670	77170	24	93	Transverse/Body/Strip		As Rolled	1.5						
				77170			Transverse/Weld/Strip									

CHEMICAL ANALYSIS-%															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-TC1211	Heat	0.050	0.40	0.008	0.002	0.251	0.160	0.060	0.050	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.41	0.008	0.002	0.265	0.153	0.060	0.050	0.013	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.41	0.008	0.002	0.247	0.160	0.061	0.049	0.013	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20582

Cert ID	19569
BOL#	S122250
Date	4/19/2013
Customer PO	14864
Pipe Sales Order	37923

Page 7 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

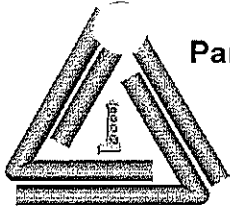
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without  
authentic hologram

201 20629

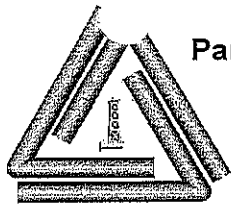
Cert ID	41483
BOL#	S122321
Date	4/23/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 1 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test:psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730 77390	27	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0742	4973	0.95	69700	73060 79030	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201-20629

Cert ID	41483
BOL#	S122321
Date	4/23/2013
Customer PO	14864
Pipe Sales Order	37923

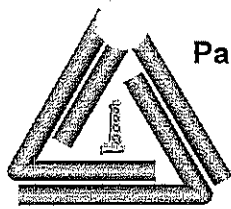
100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFV

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0743	4973	0.93	73320	79170	24	93	Transverse/Body/Strip	As Rolled	1.5						
				79690			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0743	Heat	0.050	0.39	0.013	0.002	0.242	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.047	0.41	0.011	0.001	0.236	0.125	0.055	0.057	0.011	0.002	0.010	0.000	0.000	0.09
2	Product	0.049	0.41	0.011	0.002	0.231	0.129	0.056	0.058	0.011	0.002	0.010	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip	As Rolled	1.5						
				80610			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip	As Rolled	1.5						
				81430			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20629

Cert ID	41483
BOL#	S122321
Date	4/23/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5						
				79790			Transverse/Weld/Strip									

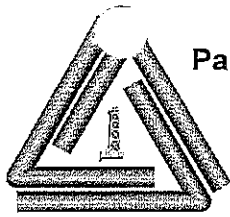
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0747	4973	0.94	71620	76000	26	93	Transverse/Body/Strip		As Rolled	1.5						
				78140			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080	27	93	Transverse/Body/Strip		As Rolled	1.5						
				79360			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

2010 20629

Cert ID	41483
BOL#	S122321
Date	4/23/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 4 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip		As Rolled	1.5						
				78310			Transverse/Weld/Strip									

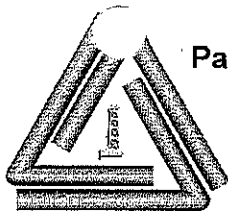
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1207	4973	0.93	73180	78360	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79390			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1208	4973	0.87	68390	78580	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80050			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1208	Heat	0.050	0.38	0.008	0.003	0.243	0.130	0.060	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.40	0.008	0.002	0.230	0.144	0.069	0.048	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.044	0.40	0.007	0.002	0.239	0.139	0.067	0.048	0.013	0.003	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

2010-20629

Cert ID	41483
BOL#	S122321
Date	4/23/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 5 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1209	4973	0.93	73290	78790	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77840			Transverse/Weld/Strip									

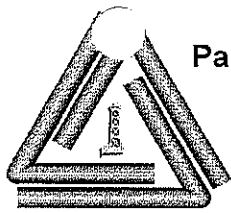
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1209	Heat	0.050	0.38	0.008	0.002	0.253	0.170	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.046	0.40	0.008	0.002	0.244	0.167	0.062	0.047	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.048	0.39	0.008	0.002	0.244	0.170	0.061	0.046	0.011	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip		As Rolled	1.5						
				83520			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip		As Rolled	1.5						
				81940			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08



Paragon Industries, Inc.

MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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2010-20629

Table with 2 columns: Field (Cert ID, BOL#, Date, Customer PO, Pipe Sales Order) and Value (41483, S122321, 4/23/2013, 14864, 37923)

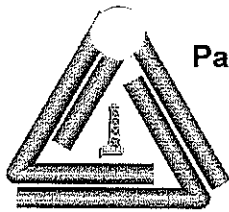
100% Melted and Manufactured in the USA
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Table with 2 main sections: MECHANICAL PROPERTIES and CHEMICAL ANALYSIS %. Includes columns for Heat Number, Steel PO #, Y/T Ratio, Yield Strength, Tensile Strength, Elong. %, Hardness, Test Type, Test Condition, Gauge Width, and various chemical elements (C, Mn, P, S, Si, Cu, Ni, Cr, Mo, V, Nb, Ti, B).

Table with 2 main sections: MECHANICAL PROPERTIES and CHEMICAL ANALYSIS %. Includes columns for Heat Number, Steel PO #, Y/T Ratio, Yield Strength, Tensile Strength, Elong. %, Hardness, Test Type, Test Condition, Gauge Width, and various chemical elements (C, Mn, P, S, Si, Cu, Ni, Cr, Mo, V, Nb, Ti, B).

Table with 2 main sections: MECHANICAL PROPERTIES and CHEMICAL ANALYSIS %. Includes columns for Heat Number, Steel PO #, Y/T Ratio, Yield Strength, Tensile Strength, Elong. %, Hardness, Test Type, Test Condition, Gauge Width, and various chemical elements (C, Mn, P, S, Si, Cu, Ni, Cr, Mo, V, Nb, Ti, B).



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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20...20629

Cert ID	41483
BOL#	S122321
Date	4/23/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 7 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-TC1211	4973	0.92	70670	77170	24	93	Transverse/Body/Strip	As Rolled	1.5						
				77170			Transverse/Weld/Strip								

CHEMICAL ANALYSIS: %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-TC1211	Heat	0.050	0.40	0.008	0.002	0.251	0.160	0.060	0.050	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.41	0.008	0.002	0.265	0.153	0.060	0.050	0.013	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.41	0.008	0.002	0.247	0.160	0.061	0.049	0.013	0.002	0.009	0.000	0.000	0.09

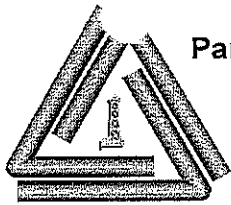
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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201-20665

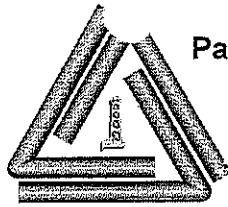
Cert ID	41517
BOL#	S122405
Date	4/24/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES												BLANK			
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0742	4973	0.95	69700	73060	26	93	Transverse/Body/Strip		As Rolled	1.5					
				79030			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES												BLANK			
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0743	4973	0.93	73320	79170	24	93	Transverse/Body/Strip		As Rolled	1.5					
				79690			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0743	Heat	0.050	0.39	0.013	0.002	0.242	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.047	0.41	0.011	0.001	0.236	0.125	0.055	0.057	0.011	0.002	0.010	0.000	0.000	0.09
2	Product	0.049	0.41	0.011	0.002	0.231	0.129	0.056	0.058	0.011	0.002	0.010	0.000	0.000	0.09

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# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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201-20665

Cert ID	41517
BOL#	S122405
Date	4/24/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 2 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80610			Transverse/Weld/Strip									

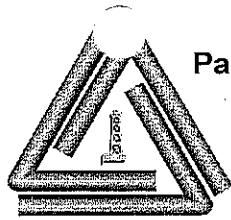
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.125	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5						
				81430			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5						
				79790			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



2010-20665

Cert ID	41517
BOL#	S122405
Date	4/24/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 3 of 4

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1207	4973	0.93	73180	78360	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79390			Transverse/Weld/Strip									

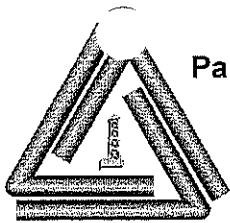
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1208	4973	0.87	68390	78580	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80050			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1208	Heat	0.050	0.38	0.008	0.003	0.243	0.130	0.060	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.40	0.008	0.002	0.230	0.144	0.069	0.048	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.044	0.40	0.007	0.002	0.239	0.139	0.067	0.048	0.013	0.003	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1209	4973	0.93	73290	78790	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77840			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1209	Heat	0.050	0.38	0.008	0.002	0.253	0.170	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.046	0.40	0.008	0.002	0.244	0.167	0.062	0.047	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.048	0.39	0.008	0.002	0.244	0.170	0.061	0.046	0.011	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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2010-20665

Cert ID	41517
BOL#	S122405
Date	4/24/2013
Customer PO	14864
Pipe Sales Order	37923

Page 4 of 4

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

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MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip		As Rolled	1.5						
				83520			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip		As Rolled	1.5						
				81940			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08

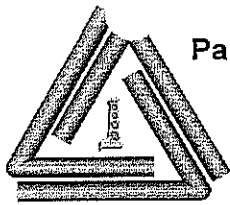
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



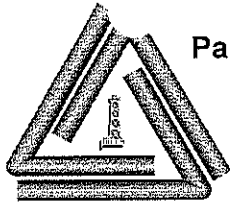
201-0701

Cert ID	41553
BOL#	S122463
Date	4/26/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
<b>MECHANICAL PROPERTIES</b>												BLANK			
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0742	4973	69700	73060 79030	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5						
<b>CHEMICAL ANALYSIS %</b>															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09
<b>MECHANICAL PROPERTIES</b>												BLANK			
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0743	4973	73320	79170 79690	24	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5						
<b>CHEMICAL ANALYSIS %</b>															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0743	Heat	0.050	0.39	0.013	0.002	0.242	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.047	0.41	0.011	0.001	0.236	0.125	0.055	0.057	0.011	0.002	0.010	0.000	0.000	0.09
2	Product	0.049	0.41	0.011	0.002	0.231	0.129	0.056	0.058	0.011	0.002	0.010	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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201-0701

Cert ID	41553
BOL#	S122463
Date	4/26/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES									BLANK	
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width		
322-NC0744	4973	70640	75190	26	93	Transverse/Body/Strip	As Rolled	1.5		
			80610			Transverse/Weld/Strip				

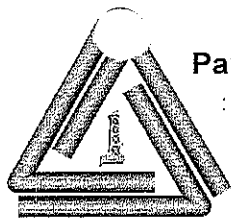
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES									BLANK	
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width		
322-NC0745	4973	70560	75100	25	93	Transverse/Body/Strip	As Rolled	1.5		
			81430			Transverse/Weld/Strip				

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES									BLANK	
Heat Number	Steel PO #	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width		
322-NC0746	4973	70820	76160	25	93	Transverse/Body/Strip	As Rolled	1.5		
			79790			Transverse/Weld/Strip				

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

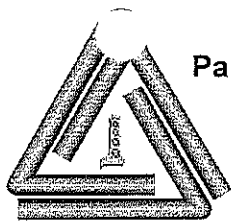
20. 20397

Cert ID	19372
BOL#	S121954
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180			Product: 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003								
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
<b>MECHANICAL PROPERTIES</b>											<b>BLANK</b>				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730 77390	27	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
<b>CHEMICAL ANALYSIS %</b>															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
<b>MECHANICAL PROPERTIES</b>											<b>BLANK</b>				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0742	4973	0.95	69700	73060 79030	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
<b>CHEMICAL ANALYSIS %</b>															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20397

Cert ID	19372
BOL#	S121954
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

Page 2 of 5

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80610			Transverse/Weld/Strip									

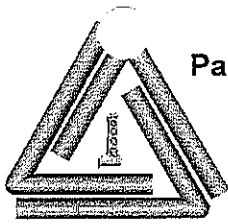
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5						
				81430			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5						
				79790			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 0397

Cert ID	19372
BOL#	S121954
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

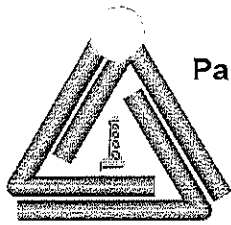
100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080 79360	27	93	Transverse/Body/Strip Transverse/Weld/Strip	As Rolled	1.5						
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0750	4973	0.94	71690	76640 80320	26	93	Transverse/Body/Strip Transverse/Weld/Strip	As Rolled	1.5						
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0750	Heat	0.050	0.39	0.008	0.002	0.232	0.140	0.060	0.050	0.010	0.002	0.010	0.005	0.000	
1	Product	0.050	0.40	0.008	0.002	0.221	0.140	0.063	0.053	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.40	0.009	0.003	0.249	0.137	0.059	0.061	0.011	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1207	4973	0.93	73180	78360 79390	23	93	Transverse/Body/Strip Transverse/Weld/Strip	As Rolled	1.5						
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20. 20397

Cert ID	19372
BOL#	S121954
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1209	4973	0.93	73290	78790	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77840			Transverse/Weld/Strip									

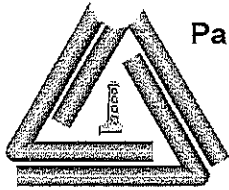
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1209	Heat	0.050	0.38	0.008	0.002	0.253	0.170	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.046	0.40	0.008	0.002	0.244	0.167	0.062	0.047	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.048	0.39	0.008	0.002	0.244	0.170	0.061	0.046	0.011	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1213	4973	0.94	69820	74670	28	93	Transverse/Body/Strip		As Rolled	1.5						
				79240			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1213	Heat	0.050	0.38	0.007	0.002	0.252	0.130	0.050	0.040	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.002	0.241	0.131	0.055	0.044	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.242	0.132	0.056	0.045	0.012	0.002	0.010	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	0.92	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77030			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20. 20397

Cert ID	19372
BOL#	S121954
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

Page 5 of 5

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1215	4973	0.93	70870	76410	23	93	Transverse/Body/Strip	As Rolled	1.5						
				79190			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1215	Heat	0.050	0.36	0.007	0.003	0.232	0.140	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.38	0.007	0.003	0.224	0.145	0.054	0.041	0.011	0.003	0.009	0.000	0.000	0.09
2	Product	0.047	0.38	0.006	0.002	0.227	0.138	0.053	0.036	0.011	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-TC1211	4973	0.92	70670	77170	24	93	Transverse/Body/Strip	As Rolled	1.5						
				77170			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-TC1211	Heat	0.050	0.40	0.008	0.002	0.251	0.160	0.060	0.050	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.41	0.008	0.002	0.265	0.153	0.060	0.050	0.013	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.41	0.008	0.002	0.247	0.160	0.061	0.049	0.013	0.002	0.009	0.000	0.000	0.09

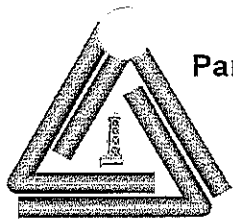
DEOX PRACTICE: Si-Al-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

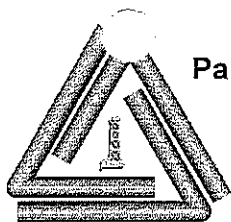
201 20398

Cert ID	19373
BOL#	S121955
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min: Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		N/A size		1600 F Degrees		Pcm			
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730 77390	27	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0742	4973	0.95	69700	73060 79030	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201\_0398

Cert ID	19373
BOL#	S121955
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

Page 2 of 5

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80610			Transverse/Weld/Strip									

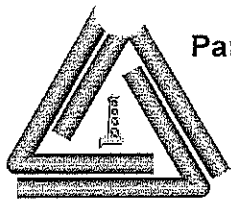
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5						
				81430			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip		As Rolled	1.5						
				78310			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20, 20398

Cert ID	19373
BOL#	S121955
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0750	4973	0.94	71690	76640	26	93	Transverse/Body/Strip	As Rolled	1.5						
			80320	Transverse/Weld/Strip											

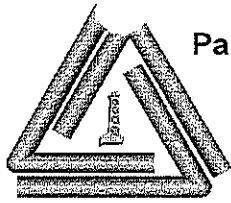
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0750	Heat	0.050	0.39	0.008	0.002	0.232	0.140	0.060	0.050	0.010	0.002	0.010	0.005	0.000	
1	Product	0.050	0.40	0.008	0.002	0.221	0.140	0.063	0.053	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.40	0.009	0.003	0.249	0.137	0.059	0.061	0.011	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1207	4973	0.93	73180	78360	23	93	Transverse/Body/Strip	As Rolled	1.5						
			79390	Transverse/Weld/Strip											

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1209	4973	0.93	73290	78790	25	93	Transverse/Body/Strip	As Rolled	1.5						
			77840	Transverse/Weld/Strip											

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1209	Heat	0.050	0.38	0.008	0.002	0.253	0.170	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.046	0.40	0.008	0.002	0.244	0.167	0.062	0.047	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.048	0.39	0.008	0.002	0.244	0.170	0.061	0.046	0.011	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20398

Cert ID	19373
BOL#	S121955
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

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MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1213	4973	0.94	69820	74670	28	93	Transverse/Body/Strip		As Rolled	1.5						
				79240			Transverse/Weld/Strip									

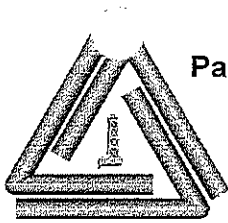
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1213	Heat	0.050	0.38	0.007	0.002	0.252	0.130	0.050	0.040	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.002	0.241	0.131	0.055	0.044	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.242	0.132	0.056	0.045	0.012	0.002	0.010	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	0.92	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77030			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1215	4973	0.93	70870	76410	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79190			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1215	Heat	0.050	0.36	0.007	0.003	0.232	0.140	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.38	0.007	0.003	0.224	0.145	0.054	0.041	0.011	0.003	0.009	0.000	0.000	0.09
2	Product	0.047	0.38	0.006	0.002	0.227	0.138	0.053	0.036	0.011	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

20. 20398

Cert ID	19373
BOL#	S121955
Date	4/11/2013
Customer PO	14864
Pipe Sales Order	37923

Page 5 of 5

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

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MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-TC1211	4973	0.92	70670	77170	24	93	Transverse/Body/Strip	As Rolled	1.5						
				77170			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-TC1211	Heat	0.050	0.40	0.008	0.002	0.251	0.160	0.060	0.050	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.41	0.008	0.002	0.265	0.153	0.060	0.050	0.013	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.41	0.008	0.002	0.247	0.160	0.061	0.049	0.013	0.002	0.009	0.000	0.000	0.09

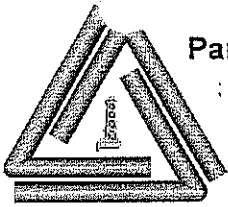
DEOX PRACTICE: Si-AI-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201-0899

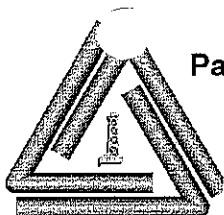
Cert ID	41746
BOL#	S122693
Date	5/6/2013
Customer PO	14864
Pipe Sales Order	37923

Page 1 of 7

100% Melted and Manufactured in the USA  
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Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACE MR0175-2:2003							
Hydrostatic Test psi 2000 @ 5 secs Passed		Flattening Test Passed		Ultrasonic Weldline (NDT) Passed		Full Length Visual .125 DH Passed		Full Length Drift N/A size		Heat Treat Min. Temperature 1600 F Degrees		CE-Formula Pcm			
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0742	4973	0.95	69700	73060 79030	26	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0743	4973	0.93	73320	79170 79690	24	93	Transverse/Body/Strip Transverse/Weld/Strip		As Rolled	1.5					
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0743	Heat	0.050	0.39	0.013	0.002	0.242	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.047	0.41	0.011	0.001	0.236	0.125	0.055	0.057	0.011	0.002	0.010	0.000	0.000	0.09
2	Product	0.049	0.41	0.011	0.002	0.231	0.129	0.056	0.058	0.011	0.002	0.010	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

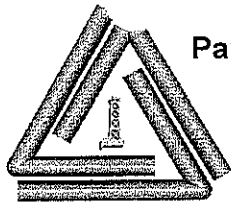
201 0899

Cert ID	41746
BOL#	S122693
Date	5/6/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

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MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5					
				80610			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5					
				81430			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5					
				79790			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 0899

Cert ID	41746
BOL#	S122693
Date	5/6/2013
Customer PO	14864
Pipe Sales Order	37923

Page 3 of 7

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0747	4973	0.94	71620	76000	26	93	Transverse/Body/Strip	As Rolled	1.5						
				78140			Transverse/Weld/Strip								

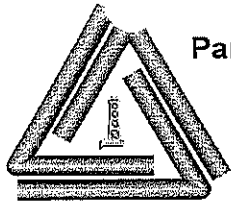
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0748	4973	0.95	73250	77080	27	93	Transverse/Body/Strip	As Rolled	1.5						
				79360			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip	As Rolled	1.5						
				78310			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 0899

Cert ID	41746
BOL#	S122693
Date	5/6/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1207	4973	0.93	73180	78360	23	93	Transverse/Body/Strip	As Rolled	1.5						
				79390			Transverse/Weld/Strip								

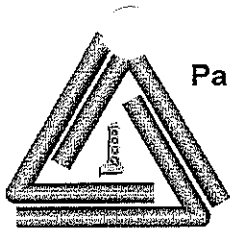
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1208	4973	0.87	68390	78580	26	93	Transverse/Body/Strip	As Rolled	1.5						
				80050			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1208	Heat	0.050	0.38	0.008	0.003	0.243	0.130	0.060	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.40	0.008	0.002	0.230	0.144	0.069	0.048	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.044	0.40	0.007	0.002	0.239	0.139	0.067	0.048	0.013	0.003	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1209	4973	0.93	73290	78790	25	93	Transverse/Body/Strip	As Rolled	1.5						
				77840			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1209	Heat	0.050	0.38	0.008	0.002	0.253	0.170	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.046	0.40	0.008	0.002	0.244	0.167	0.062	0.047	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.048	0.39	0.008	0.002	0.244	0.170	0.061	0.046	0.011	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201\_0899

Cert ID	41746
BOL#	S122693
Date	5/6/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

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MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1210	4973	0.94	72560	77060	30	93	Transverse/Body/Strip		As Rolled	1.5						
				83520			Transverse/Weld/Strip									

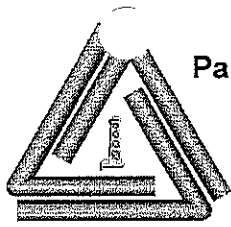
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1210	Heat	0.050	0.40	0.008	0.003	0.240	0.140	0.050	0.050	0.020	0.002	0.009	0.001	0.000	
1	Product	0.044	0.41	0.008	0.002	0.231	0.139	0.052	0.048	0.016	0.002	0.008	0.000	0.000	0.08
2	Product	0.044	0.41	0.007	0.002	0.235	0.141	0.052	0.049	0.016	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip		As Rolled	1.5						
				81940			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1213	4973	0.94	69820	74670	28	93	Transverse/Body/Strip		As Rolled	1.5						
				79240			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1213	Heat	0.050	0.38	0.007	0.002	0.252	0.130	0.050	0.040	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.002	0.241	0.131	0.055	0.044	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.242	0.132	0.056	0.045	0.012	0.002	0.010	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 0899

Cert ID	41746
BOL#	S122693
Date	5/6/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 6 of 7

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MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1214	4973	0.92	68790	75060	25	93	Transverse/Body/Strip		As Rolled	1.5						
				77030			Transverse/Weld/Strip									

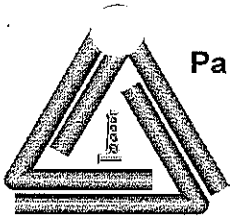
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1214	Heat	0.050	0.37	0.006	0.004	0.221	0.130	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.049	0.38	0.008	0.004	0.207	0.136	0.060	0.039	0.012	0.002	0.008	0.000	0.000	0.09
2	Product	0.052	0.39	0.007	0.003	0.211	0.132	0.058	0.040	0.012	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1215	4973	0.93	70870	76410	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79190			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1215	Heat	0.050	0.36	0.007	0.003	0.232	0.140	0.050	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.38	0.007	0.003	0.224	0.145	0.054	0.041	0.011	0.003	0.009	0.000	0.000	0.09
2	Product	0.047	0.38	0.006	0.002	0.227	0.138	0.053	0.036	0.011	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-TC1211	4973	0.92	70670	77170	24	93	Transverse/Body/Strip		As Rolled	1.5						
				77170			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-TC1211	Heat	0.050	0.40	0.008	0.002	0.251	0.160	0.060	0.050	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.41	0.008	0.002	0.265	0.153	0.060	0.050	0.013	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.41	0.008	0.002	0.247	0.160	0.061	0.049	0.013	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW



Not valid without authentic hologram

20 20899

Cert ID	41746
BOL#	S122693
Date	5/6/2013
Customer PO	14864
Pipe Sales Order	37923

Page 7 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

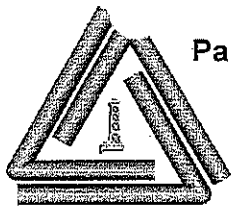
DEOX PRACTICE: Si-AI-FULLY KILLED-Calcium added for inclusion shape control

Results relate only to items tested. This report is not to be reproduced without written approval of Paragon Quality Assurance

Quality Assurance

Metallurgist

Comments: MEETS THE REQUIREMENTS OF API 5L GRADE B PSL-1 MATERIAL WITH ELOGATION EXCEPTION WITH A MINIMUM OF 22.9%



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

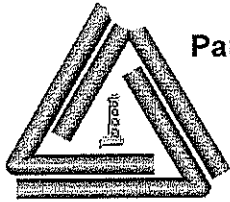
201 J582

Cert ID	19569
BOL#	S122250
Date	4/19/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
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Customer: Corpac Steel Products 20803 Biscayne Blvd., Suite #502 Aventura (Miami), FL 33180				Product: 8 5/8 .322 28.58 APIBPSL-1 W/ X56 ELONG				Specification: API 5L-44th EDITION-ISO 3183:2007 NACEMR0175-2:2003							
Hydrostatic Test psi		Flattening Test		Ultrasonic Weldline (NDT)		Full Length Visual		Full Length Drift		Heat Treat Min. Temperature		CE-Formula			
2000 @ 5 secs Passed		Passed		Passed		.125 DH		Passed		N/A size		1600 F Degrees Pcm			
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0741	4973	0.93	69240	74730	27	93	Transverse/Body/Strip		As Rolled	1.5					
				77390			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0741	Heat	0.060	0.39	0.008	0.002	0.226	0.150	0.060	0.060	0.020	0.001	0.009	0.001	0.000	
1	Product	0.051	0.40	0.007	0.002	0.219	0.153	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.053	0.40	0.008	0.002	0.216	0.154	0.067	0.058	0.014	0.002	0.009	0.000	0.000	0.09
MECHANICAL PROPERTIES											BLANK				
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0742	4973	0.95	69700	73060	26	93	Transverse/Body/Strip		As Rolled	1.5					
				79030			Transverse/Weld/Strip								
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0742	Heat	0.050	0.38	0.010	0.002	0.239	0.130	0.060	0.050	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.39	0.009	0.001	0.224	0.133	0.061	0.054	0.011	0.002	0.008	0.000	0.000	0.09
2	Product	0.048	0.40	0.008	0.001	0.227	0.134	0.061	0.057	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



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201 J582

Cert ID	19569
BOL#	S122250
Date	4/19/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

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MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0744	4973	0.94	70640	75190	26	93	Transverse/Body/Strip		As Rolled	1.5					
				80610			Transverse/Weld/Strip								

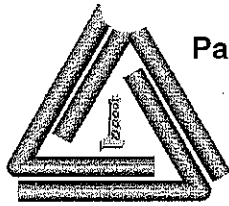
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0744	Heat	0.050	0.39	0.009	0.003	0.247	0.120	0.050	0.050	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.233	0.126	0.057	0.051	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.049	0.38	0.007	0.003	0.230	0.126	0.058	0.048	0.013	0.002	0.008	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0745	4973	0.94	70560	75100	25	93	Transverse/Body/Strip		As Rolled	1.5					
				81430			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0745	Heat	0.050	0.37	0.007	0.004	0.243	0.120	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.253	0.143	0.057	0.049	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.046	0.39	0.007	0.002	0.229	0.132	0.058	0.047	0.012	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0746	4973	0.93	70820	76160	25	93	Transverse/Body/Strip		As Rolled	1.5					
				79790			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0746	Heat	0.050	0.38	0.008	0.004	0.260	0.150	0.050	0.040	0.010	0.001	0.009	0.001	0.000	
1	Product	0.050	0.39	0.007	0.003	0.250	0.151	0.057	0.046	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.051	0.39	0.007	0.003	0.250	0.153	0.057	0.047	0.012	0.002	0.009	0.000	0.000	0.09



Paragon Industries, Inc.

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EN 10204-TYPE 3.1



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201 0582

Cert ID	19569
BOL#	S122250
Date	4/19/2013
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Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 3 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0747	4973	0.94	71620	76000	26	93	Transverse/Body/Strip		As Rolled	1.5					
				78140			Transverse/Weld/Strip								

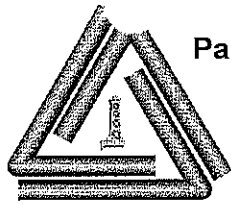
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0747	Heat	0.050	0.39	0.007	0.002	0.233	0.130	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.052	0.40	0.006	0.002	0.222	0.128	0.059	0.046	0.013	0.002	0.008	0.000	0.000	0.09
2	Product	0.045	0.40	0.006	0.001	0.226	0.128	0.058	0.044	0.013	0.002	0.009	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0748	4973	0.95	73250	77080	27	93	Transverse/Body/Strip		As Rolled	1.5					
				79360			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0748	Heat	0.050	0.41	0.005	0.001	0.262	0.130	0.050	0.050	0.010	0.003	0.012	0.001	0.000	
1	Product	0.043	0.39	0.007	0.002	0.228	0.134	0.058	0.046	0.013	0.002	0.009	0.000	0.000	0.08
2	Product	0.046	0.39	0.006	0.002	0.226	0.133	0.057	0.046	0.013	0.002	0.009	-0.001	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width					
322-NC0749	4973	0.94	70290	74850	27	93	Transverse/Body/Strip		As Rolled	1.5					
				78310			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0749	Heat	0.050	0.38	0.009	0.003	0.261	0.130	0.060	0.060	0.010	0.002	0.010	0.002	0.000	
1	Product	0.042	0.39	0.009	0.003	0.239	0.139	0.060	0.060	0.012	0.003	0.009	0.000	0.000	0.08
2	Product	0.045	0.39	0.010	0.003	0.240	0.140	0.060	0.061	0.012	0.002	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 0582

Cert ID	19569
BOL#	S122250
Date	4/19/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
Manufactured by Electric Resistance Welding: EW HFW

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-NC0750	4973	0.94	71690	76640	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80320			Transverse/Weld/Strip									

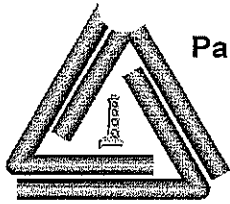
CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-NC0750	Heat	0.050	0.39	0.008	0.002	0.232	0.140	0.060	0.050	0.010	0.002	0.010	0.005	0.000	
1	Product	0.050	0.40	0.008	0.002	0.221	0.140	0.063	0.053	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.049	0.40	0.009	0.003	0.249	0.137	0.059	0.061	0.011	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1207	4973	0.93	73180	78360	23	93	Transverse/Body/Strip		As Rolled	1.5						
				79390			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1207	Heat	0.050	0.38	0.007	0.003	0.241	0.130	0.050	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.048	0.39	0.007	0.002	0.228	0.132	0.058	0.047	0.012	0.003	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.229	0.132	0.058	0.048	0.012	0.003	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK						
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile		Test Condition	Gauge Width						
322-SC1208	4973	0.87	68390	78580	26	93	Transverse/Body/Strip		As Rolled	1.5						
				80050			Transverse/Weld/Strip									

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1208	Heat	0.050	0.38	0.008	0.003	0.243	0.130	0.060	0.040	0.010	0.002	0.009	0.001	0.000	
1	Product	0.048	0.40	0.008	0.002	0.230	0.144	0.069	0.048	0.014	0.002	0.009	0.000	0.000	0.09
2	Product	0.044	0.40	0.007	0.002	0.239	0.139	0.067	0.048	0.013	0.003	0.009	0.000	0.000	0.08



Paragon Industries, Inc.

# MATERIAL TEST REPORT

EN 10204-TYPE 3.1



Not valid without authentic hologram

201 20582

Cert ID	19569
BOL#	S122250
Date	4/19/2013
Customer PO	14864
Pipe Sales Order	37923

100% Melted and Manufactured in the USA  
 Manufactured by Electric Resistance Welding: EW HFW

Page 5 of 7

We certify that the products described have been manufactured, sampled, inspected and tested in accordance to the referenced specification and/or order, and is in compliance with all requirements.

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1209	4973	0.93	73290	78790	25	93	Transverse/Body/Strip	As Rolled	1.5						
				77840			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1209	Heat	0.050	0.38	0.008	0.002	0.253	0.170	0.060	0.040	0.010	0.002	0.010	0.001	0.000	
1	Product	0.046	0.40	0.008	0.002	0.244	0.167	0.062	0.047	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.048	0.39	0.008	0.002	0.244	0.170	0.061	0.046	0.011	0.002	0.009	0.000	0.000	0.09

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1212	4973	0.92	70950	76850	24	93	Transverse/Body/Strip	As Rolled	1.5						
				81940			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1212	Heat	0.050	0.37	0.007	0.002	0.234	0.140	0.050	0.030	0.010	0.001	0.009	0.001	0.000	
1	Product	0.047	0.38	0.007	0.002	0.222	0.141	0.053	0.036	0.011	0.002	0.008	0.000	0.000	0.08
2	Product	0.048	0.37	0.007	0.002	0.220	0.139	0.053	0.035	0.011	0.002	0.008	0.000	0.000	0.08

MECHANICAL PROPERTIES										BLANK					
Heat Number	Steel PO #	Y/T Ratio	Yield Strength psi	Tensile Strength psi	Elong. % in 2 inches	Hardness HRB (Max)	Test Type Orientation/Tensile	Test Condition	Gauge Width						
322-SC1213	4973	0.94	69820	74670	28	93	Transverse/Body/Strip	As Rolled	1.5						
				79240			Transverse/Weld/Strip								

CHEMICAL ANALYSIS %															
Heat Number	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CE-0.25% Max
322-SC1213	Heat	0.050	0.38	0.007	0.002	0.252	0.130	0.050	0.040	0.010	0.001	0.010	0.001	0.000	
1	Product	0.050	0.39	0.007	0.002	0.241	0.131	0.055	0.044	0.012	0.002	0.009	0.000	0.000	0.09
2	Product	0.050	0.39	0.007	0.002	0.242	0.132	0.056	0.045	0.012	0.002	0.010	0.000	0.000	0.09

증명서번호  
 CERTIFICATE No. : 120601-01  
 계약번호  
 CONTACT(P/O) No. : STK-53936  
 발급일자  
 ISSUED DATE : 2012-06-01  
 제품명  
 COMMODITY : E.R.W. STEEL PIPE  
 제품규격  
 SPECIFICATION : API 5L X52M PSL2  
 API 5L 44TH EDITION  
 NACE MR0175 HARDNESS ONLY

페이지  
 page : 2 of 5

# 검사증명서 INSPECTION CERTIFICATE



**넥스틸㈜**  
**NEXTEEL CO., LTD.**

EN10204-TYPE 3.1 B-1991

고객사  
 CUSTOMER : JD FIELDS & COMPANY

본사 공장 : 경북 포항시 남구 대송면 대각리 767-1번지  
 HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun, Nam-Gu, Pohang City, Kyungbuk, Korea.

ITEM NO.	관종 TYPE OF PIPE END	호칭경 NOMINAL SIZE	치수 Dimension (O.D x Thick. x Length)	수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	재강번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)										화학성분 CHEMICAL COMPOSITION(%)										수압시험 HYDRO-STATIC TEST		충격시험 IMPACT TEST		경도시험 HARDNESS TEST		부식시험 Corrosion TEST		비고 RE-MARK	
							항복강도 YIELD STRENGTH (MPa)	인장강도 TENSILE STRENGTH (MPa)		항복률 YIELD RATIO (%)	연신율 EL. (%)	C	SI	Mn	P	S	Cr	Ni	Cu	Mo	V	Sol. AI	Ti	B	Nb	Eq.	H-Time:5sec	T.P (PSI)	RE-SULT	충수 에너지 흡수 (J) (0)°C, 27 J ↑		HRB	HV	HIC		SSCC
								B	W																					②	③					
								④																						⑤	⑥					
1	BBE	6-5/8	8.625" x 0.322" x 42'	50	27,216	SP31565	62,350	71,490	87	41	H	619	193	951	129	24	2	1	21	Tr	1		20	2	170	0.12	2,930	G	1:137 2:135 3:138 A:138	1:110 2:108 3:110 A:109	94					
				200	108,864	SP31672	59,020	70,180	84	43	H	624	192	958	100	14	2	1	16	Tr	1		20	2	170	0.12	2,930	G	1:140 2:138 3:139 A:139	1:107 2:107 3:108 A:107	90					
				275	149,688	SP31674	59,740	70,330	85	42	H	637	182	966	115	23	2	1	17	Tr	1		20	2	180	0.12	2,930	G	1:138 2:140 3:138 A:139	1:112 2:113 3:110 A:111	91					
			** SUB TOTAL **	525	285,768																															
열처리 HEAT TREATMENT (WELD SEAM)		외관, 치수검사 VISUAL & DIMENSION		편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST		전개시험 REVERSE FLATTENING TEST		용접부연성시험 WELD DUCTILITY TEST				알카시 시험 FLARING TEST		잔류자장시험 RESIDUAL MAGNETISM TEST		충압시험 CRUSH TEST		직각도 STRAIGHTNESS		관통시험 DRIFT TEST		비파괴검사 ⑩ NONDESTRUCTIVE TEST (NDT)														
G		G		G				G				G		G		G		G		G		U.T SEAM FULL BODY M.T														
N O T E		① BPE: BLACK PLAIN END, BBE: BLACK BEVELLED END, BTE: BLACK THREADED END, BTC: BLACK THREADED & COUPLED, GPE: GALVANIZED PLAIN END.		② O.D.: OUTSIDE DIAMETER, Thick.: Wall Thickness. Unit 단위 (M: mm, I: inch)		③ Unit 단위: (M: Meter, F: Feet, I: Inch)		④ B: BASE METAL (모재부), W: WELD METAL (용접부)				⑤ H: HEAT(LADLE) ANALYSIS: 열연분석, P: PRODUCT ANALYSIS		⑥ Chemical Composition Unit: -4: ×1/10000, -3: ×1/1000, -2: ×1/100 (The test value less than each unit is regarded as Tr)		⑦ Tr: It is within the standard range and include trace element		⑧ Carbon Equivalent (동가탄소량): C(SI)/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B		⑨ T.P: TEST PRESSURE (테스트 압력)		⑩ G: Good		⑪ NDT: 비파괴검사, E.T: EDDY CURRENT TEST		* Tensile Test (Strip Type Specimen: Width)   ≤ 3-1/2" → 19mm, 4" - 7-5/8" → 25mm   6-5/8" ≤ → 38mm   < 8-5/8" Pipe Body : L90   8-5/8" ≤ Pipe Body : T180, Seam Weld : W   * Reference Indicator for NDE : N10 9.2mm(0.125")   * Min. temperature for Heat Treatment : Min. 1,020°C										
SIGNATURE																																				
																						본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다. WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.														
SURVEYOR TO :																						SIGNATURE  MANAGER OF QUALITY ASSURANCE TEAM														

증명서번호 : 120801-01  
 CERTIFICATE No. : 120801-01  
 계약번호 : STK-53938  
 CONTACT(P/O) No. : STK-53938  
 발급일자 : 2012-06-01  
 ISSUED DATE : 2012-06-01  
 제품명 : E.R.W. STEEL PIPE  
 COMMODITY : E.R.W. STEEL PIPE  
 제품규격 : API 5L X52M PSL2  
 SPECIFICATION : API 5L 44TH EDITION  
 NACE MR0175 HARDNESS ONLY

페이지 : 3 of 5  
 page : 3 of 5

# 검사증명서 INSPECTION CERTIFICATE



넥스틸㈜  
 NEXTEEL CO., LTD.

EN10204 TYPE 3.1 B-1991

고객사  
 CUSTOMER : JD FIELDS & COMPANY

본사 공장 : 경북 포항시 남구 대송면 대각리 787-1번지  
 HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun, Nam-Gu, Pohang City, KyungBuk, Korea.

ITEM No.	관종 TYPE OF PIPE END	호칭경 NOMINAL SIZE	치수 Dimension 외경 x 두께 x 길이 (O.D x Thick. x Length)	수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	재강번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)					화학성분 CHEMICAL COMPOSITION(%)													수압시험 HYDRO-STATIC TEST		충격시험 IMPACT TEST		경도시험 HARDNESS TEST		부식시험 Corrosion TEST		비고 RE-MARK				
							항복강도 YIELD STRENGTH psi (MPa)	인장강도 TENSILE STRENGTH psi (MPa)		항복률 YIELD RATIO (%)	연신율 ELONGATION (%)	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Nb	Ti	B	N	Oeq.	T.P	RE	흡수 에너지 ABSORBED ENERGY (J) @		HRS	HV		HIC	SSCC		
								B	W																				⑦							⑧	
								④																					⑤							⑥	
1	BBE	8-5/8	8.625" x 0.322" x 42'	75	40,824	SP31877	59,740	70,910	84	42	H	656	180	965	105	22	2	1	16	Tr	1	20	2	180	0.12	2,930	G	1:108 2:141 3:167 A:129	1:111 2:112 3:115 A:112	93							
				280	152,410	SP31880	61,480	72,070	84	41	P	654	178	962	98	21	2	1	15	Tr	1	20	2	180	0.12	2,930	G	1:140 2:136 3:138 A:139	1:106 2:110 3:108 A:109	91							
				445	242,222	SP31882	60,470	71,340	85	43	H	647	190	965	118	25	2	1	23	Tr	1	20	2	180	0.12	2,930	G	1:137 2:137 3:139 A:137	1:110 2:109 3:110 A:109	92							
			** SUB TOTAL **	800	435,456																																

열처리 HEAT TREATMENT (WELD SEAM) : G  
 외관, 치수검사 VISUAL & DIMENSION : G  
 편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST : G  
 전개시험 REVERSE FLATTENING TEST : G  
 용접부연성시험 WELD DUCTILITY TEST : G  
 압축시험 FLARING TEST : G  
 잔류자장시험 RESIDUAL MAGNETISM TEST : G  
 충격시험 CRUSH TEST : G  
 직각도 STRAIGHTNESS : G  
 관통시험 DRIFT TEST : G  
 비파괴검사 NONDESTRUCTIVE TEST (NDT) : G  
 U.T FULL BODY : G  
 M.T : G

NOTE: ① BPE: BLACK PLAIN END, BBE: BLACK BEVELLED END, BTE: BLACK THREADED END, BTC: BLACK THREADED & COUPLED, GPE: GALVANIZED PLAIN END. ② O.D.: OUTSIDE DIAMETER, Thick.: Wall Thickness. Unit 단위 (M: mm, I: Inch) ③ Unit 단위: (M: Meter, F: Feet, I: Inch) ④ B: BASE METAL (모재부), W: WELD METAL (용접부) ⑤ H: HEAT(LADLE) ANALYSIS 열원분석, P: PRODUCT ANALYSIS ⑥ Chemical Composition Unit: -4: x1/10000, -3: x1/1000, -2: x1/100 (The test value less than each unit is regarded as Tr) \* Tr: It is within the standard range and include trace element ⑦ Carbon Equivalent (동기탄소량): CxSI/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B. ⑧ T.P: TEST PRESSURE (테스트 압력) ⑨ G: Good ⑩ NDT: 비파괴검사, E.T: EDDY CURRENT TEST \* Tensile Test (Strip Type Specimen: Width) : < 3-1/2" -> 19mm, 4" - 7-5/8" -> 25mm 8-5/8" < -> 38mm < 8-5/8" Pipe Body : L50 8-5/8" Pipe Body : T180, Seam Weld : W \* Reference Indicator for NDE : N10 3.2mm (0.125") \* Min. temperature for Heat Treatment : Min. 1,020°C

SIGNATURE : 본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다.  
 WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.  
 SURVEYOR TO :  
 SIGNATURE :  
 MANAGER OF QUALITY ASSURANCE TEAM

중량서번호 : 120601-01  
 CERTIFICATE No. : 120601-01  
 계약번호 : STK-53936  
 CONTECT(P/O) No. : STK-53936  
 발급일자 : 2012-06-01  
 ISSUED DATE : 2012-06-01  
 제품명 : E.R.W. STEEL PIPE  
 COMMODITY : E.R.W. STEEL PIPE  
 제품규격 : API 5L X52M PSL2  
 SPECIFICATION : API 5L 44TH EDITION  
 NACE MR0175 HARDNESS ONLY

페이지 : 4 of 5  
 page : 4 of 5

# 검사증명서

## INSPECTION CERTIFICATE

EN10204 TYPE 3.1 B-1991



NEXTEEL CO., LTD.  
 넥스틸㈜

고객사 : JD FIELDS & COMPANY  
 CUSTOMER : JD FIELDS & COMPANY

본사 공장 : 경북 포항시 남구 대송면 대각리 787-1번지  
 HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun, Nam-Gu, Pohang City, KyungBuk, Korea.

ITEM NO.	ITEM TYPE OF PIPE END	호칭경 NOMINAL SIZE	치수 Dimension 의경 x 두께 x 길이 (O.D x Thick. x Length)	수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	저장번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)				화합성분 CHEMICAL COMPOSITION(%)														수막시험 HYDRO-STATIC TEST		충격시험 IMPACT TEST		경도시험 HARDNESS TEST		부식시험 Corrosion TEST		비고 RE-MARK				
							항복강도 YIELD STRENGTH psi (MPa)	인장강도 TENSILE STRENGTH psi (MPa)		항복률 YIELD RATIO (%)	연신률 EL (%)	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Soi - Al	Ti	B	Nb	Caq.	T.P (PSI)	RE-SULT	온수 에너지 흡수 ABsorBED ENERGY(J) Ⓣ		HRB	HV		HIC	SSCC		
								B	W																				⑦	⑧						⑨	⑩
								④																													
1	BBE	8-5/8	8.625" x 0.322" x 42'	174	94,712	SP31886	61,480	71,200	86	42	H	584	186	983	104	20	2	1	20	Tr	1	20	2	190	0.12	2,930	G	1:140 2:138 3:127 A:138	1:110 2:108 3:108 A:108	91							
				285	155,131	SP69993	63,220	72,500	87	40	H	580	187	974	134	22	1	1	16	Tr	1	10	2	180	0.12	2,930	G	1:137 2:136 3:138 A:137	1:109 2:110 3:109 A:109	90							
				50	27,218	SP70013	63,370	73,080	87	41	H	623	191	952	136	28	1	1	16	Tr	1	10	2	190	0.12	2,930	G	1:140 2:137 3:139 A:138	1:107 2:108 3:107 A:107	91							
			** SUB TOTAL **	509	277,059																																

열처리 HEAT TREATMENT (WELD SEAM) : G  
 외관, 치수검사 VISUAL & DIMENSION : G  
 편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST : G  
 전개시험 REVERSE FLATTENING TEST : G  
 용접부연성시험 WELD DUCTILITY TEST : G  
 압축시험 FLARING TEST : G  
 잔류자장시험 RESIDUAL MAGNETISM TEST : G  
 종압시험 CRUSH TEST : G  
 직각도 STRAIGHTNESS : G  
 관통시험 DRIFT TEST : G  
 비파괴검사 Ⓣ NONDESTRUCTIVE TEST (NDT) : U.T. SEAM, FULL BODY, N.T.  
 Ⓣ Eddy Current Test

① BPE: BLACK PLAIN END, BBE: BLACK BEVELLED END, BTE: BLACK THREADED END, BTC: BLACK THREADED & COUPLED, GPE: GALVANIZED PLAIN END  
 ② D.D.: OUTSIDE DIAMETER, Thick.: Wall Thickness  
 Unit 단위 (M: mm, I: Inch)  
 ③ Unit 단위: (M: Meter, F: Feet, I: Inch)  
 ④ B: BASE METAL (모재부), W: WELD METAL (용접부)  
 ⑤ H: HEAT(LADLE) ANALYSIS 열원분석, P: PRODUCT ANALYSIS  
 ⑥ Chemical Composition Unit: -4: x1/10000, -3: x1/1000, -2: x1/100 (The test value less than each unit is regarded as Tr)  
 \* Tr: It is within the standard range and include trace element ⑦ Carbon Equivalent (등가 탄소량): C+S1/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+SiB

SIGNATURE : \_\_\_\_\_  
 WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.  
 SIGNATURE : \_\_\_\_\_  
 MANAGER OF QUALITY ASSURANCE TEAM

증명서번호 : 120601-01  
 CERTIFICATE No. : 120601-01  
 계약번호 : STK-53936  
 CONTACT(P/O) No. : STK-53936  
 발급일자 : 2012-06-01  
 ISSUED DATE : 2012-06-01  
 제품명 : E.R.W. STEEL PIPE  
 COMMODITY : E.R.W. STEEL PIPE  
 제품규격 : API 5L X52M PSL2  
 SPECIFICATION : API 5L 44TH EDITION  
 NACE MR0175 HARDNESS ONLY

페이지 : 5 of 5  
 page : 5 of 5

# 검사증명서 INSPECTION CERTIFICATE



**넥스틸**  
**NEXTEEL CO., LTD.**

EN10204 TYPE 3.1 B-1991

본사 공장 : 경북 포항시 남구 대송면 대각리 767-1번지  
 HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun, Nam-Gu, Pohang City, KyungBuk, Korea.

고객사 : JD FIELDS & COMPANY  
 CUSTOMER : JD FIELDS & COMPANY

ITEM NO.	관종 OF PIPE END	호칭경 NOMINAL SIZE	치수 Dimension		수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	재강번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)					화학성분 CHEMICAL COMPOSITION(%)															수압시험 HYDRO-STATIC TEST		충격시험 IMPACT TEST		경도시험 HARDNESS TEST		부식시험 CORROSION TEST		비고 RE-MARK																												
			외경 x 두께 x 길이 (O.D x Thick. x Length)	②				③	항복강도 YIELD STRENGTH (MPa)	인장강도 TENSILE STRENGTH (MPa)	항복률 YIELD RATIO (%)	연신율 EL. (%)	④	⑤	C	SI	Mn	P	S	Cr	Ni	Cu	Mo	V	SoI	Ti	B	Nb	Ceq.	H-Time:5sec	T.P RE (PSI)	RE- SUIT	온수-에너지 흡수(AESORBED ENERGY)(J) ⊕	⑦	⑧		⑨	⑩	⑪	⑫																								
																																									B	W	⑥	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗	㉘	㉙	㉚	㉛	㉜	㉝
1	BPE	8-5/8	8.625" x 0.322" x 42'		191	103,965	SP70148	63,450	71,280	88	40	H	683	182	965	98	20	2	1	20	Tr	1		20	2	200	0.13	2,930	G	1:137	1:112			93																														
							SP70151	65,480	72,950	90	39	H	685	187	965	130	20	1	2	18	Tr	1		20	1	200	0.13	2,930	G	1:140	1:109			92																														
							SP70157	65,110	78,740	83	33	H	723	204	1033	103	15	2	1	16	Tr	1		20	3	200	0.13	2,930	G	1:141	1:112			91																														
								65,470	71,250	71,320	89	40	P	682	178	965	98	19	2	1	20	Tr	1		20	2	200	0.13			1:135	1:110																																
								65,470	71,250	71,320	89	40	P	680	180	962	95	20	2	1	20	Tr	1		20	2	200	0.13			1:136	1:115																																
								65,470	72,930	72,980	90	38	P	685	184	965	130	20	1	1	18	Tr	1		20	1	200	0.13			1:140	1:109																																
								65,070	78,730	78,760	83	31	P	728	201	1028	98	14	2	1	16	Tr	1		20	3	200	0.13			1:138	1:114																																
								65,070	78,730	78,780	83	31	P	722	205	1030	100	15	2	1	16	Tr	1		20	3	200	0.13			1:142	1:115																																
								** SUB TOTAL **		491	267,261																																																					
								*** GRAND TOTAL ***		2,433	1,311,159																																																					
	열처리 HEAT TREATMENT (WELD SEAM)	외관, 치수검사 VISUAL & DIMENSION	편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST		전개시험 REVERSE FLATTENING TEST		용접부연성시험 WELD DUCTILITY TEST					양삭시험 FLARING TEST			잔류자장시험 RESIDUAL MAGNETISM TEST		충압시험 CRUSH TEST		직각도 STRAIGHTNESS		관통시험 DRIFT TEST		비파괴검사 ⊕ NONDESTRUCTIVE TEST(NDT)																																									
	G	G	G		G		G					G			G		G		G		G		G																																									
NOTE	⊕ BPE: BLACK PLAIN END, SSE: BLACK BEVELLED END, BTE: BLACK THREADED END, BTC: BLACK THREADED & COUPLED, GPE: GALVANIZED PLAIN END. ⊙ O.D.: OUTSIDE DIAMETER, Thick.: Wall Thickness Unit: mm (1: Inch) ⊙ Unit: mm (M: Meter, F: Feet, 1: Inch) ⊙ B: BASE METAL (모재부), W: WELD METAL (용접부) ⊙ H: HEAT(LADLE) ANALYSIS: 원료분석, P: PRODUCT ANALYSIS ⊙ Chemical Composition Unit: -4: ×1/10000, -3: ×1/1000, -2: ×1/100 (The test value less than each unit is regarded as Tr) * Tr: It is within the standard range and include trace element ⊙ Carbon Equivalent(등가탄소량): C=Si/30Mn/20Cu/20Ni/60Cr/20Mo/15V/10Nb																																																															
	* Tensile Test (Strip Type Specimen: Width) : ≤ 3-1/2" → 19mm, 4" ~ 7-5/8" → 25mm 8-5/8" ≤ → 38mm < 8-5/8" Pipe Body : LSO 8-5/8" ≤ Pipe Body : T180, Seam Weld : W * Reference Indicator for NDE : N10-3.2mm(0.125") * Min. temperature for Heat Treatment : Min. 1,020°C																																																															
SIGNATURE															SIGNATURE																																																	
본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다. WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.																																																																
SURVEYOR TO :															MANAGER OF QUALITY ASSURANCE TEAM																																																	



증명서번호 : 130122-01  
 CERTIFICATE No. : 130122-01  
 계약번호 : STK-55398  
 CONTECT(P/O) No. : STK-55398  
 발급일자 : 2013-01-22  
 ISSUED DATE : 2013-01-22  
 제품명 : E.R.W. STEEL PIPE  
 COMMODITY : E.R.W. STEEL PIPE  
 제품규격 : API 5L X52M PSL2  
 SPECIFICATION : API 5L 44TH EDITION  
 NACE MR0175 HARDNESS ONLY

페이지 : 14 of 34  
 page : 14 of 34

# 검사증명서

## INSPECTION CERTIFICATE

EN10204, TYPE 3.1 B-1991



넥스틸 (株)  
 NEXTEEL CO., LTD.

본사 공장 : 경북 포항시 남구 대송면 대각리 767-1번지  
 HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun, Nam-Gu, Pohang City, KyungBuk, Korea.

고객사 : JD FIELDS & COMPANY  
 CUSTOMER : JD FIELDS & COMPANY

ITEM NO.	관종 TYPE OF PIPE END	외경 NOMINAL SIZE	치수 Dimension (O.D x Thick. x Length)	수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	재질번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)				화학성분 CHEMICAL COMPOSITION (%)														수압시험 HYDRO-STATIC TEST		충격시험 IMPACT TEST		경도시험 HARDNESS TEST		부식시험 CORROSION TEST		비고 REMARK														
							항복강도 YIELD STRENGTH (MPa)	인장강도 TENSILE STRENGTH (MPa)	항복율 YIELD RATIO (%)	연신율 ELONGATION (%)	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Sol-Al	Ti	B	Nb	Coq.	H-Time:5sec	T.P. (PSI)	RE-SULT	(0.3)C. 27 J	b	b	HV		HV	HIC	SSCC											
																																					B	W	-4	-3	-4	-2	-3	-2	-3	-4	0.25%
							①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖		㉗	㉘	㉙	㉚	㉛	㉜	㉝	㉞	㉟					
1	BSE	8-5/8"	8.925" x 0.322" x 42'	505	274,876	S860863	60,760	71,630	85	41	H	667	187	960	127	21	2	1	10	1	2			10	Tr	180	0.13	2,930	G	1:134	1:114	95															
				400	217,756	S860867	60,750	71,430	85	40	P	685	185	957	125	20	2	2	8	Tr	1			10	Tr	170	0.12			2:135	2:122	94															
				584	306,972	S860871	60,750	71,040	86	41	P	652	175	964	143	33	1	2	16	Tr	2			10	Tr	180	0.12			3:128	3:110	93															
			** SUB TOTAL **	1,469	799,604		62,830	73,220	86	39	H	639	190	973	152	21	2	2	18	Tr	2			10	Tr	200	0.12	2,930	G	1:138	1:117																
							62,630	72,930	86	39	P	638	189	970	149	19	1	2	16	Tr	1			10	Tr	200	0.12			3:128	3:120																
							62,730	73,030	86	40	P	637	187	972	151	18	2	1	17	Tr	1			10	Tr	180	0.12			A:131	A:115																
열처리 HEAT TREATMENT (WELD SEAM)		외관, 치수검사 VISUAL & DIMENSION		편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST		전개시험 REVERSE FLATTENING TEST		용접부연성시험 WELD DUCTILITY TEST			압착시험 FLARING TEST		잔류자장시험 RESIDUAL MAGNETISM TEST		충압시험 CRUSH TEST		직각도 STRAIGHTNESS			관통시험 DRIFT TEST		비파괴검사 ㉞ NONDESTRUCTIVE TEST (NDT)																									
G		G		G		G		G			G		G		G			G		G																											
N O T E		① BPE: BLACK PLAIN END, BBE: BLACK BEVELLED END, STE: BLACK THREADED END, BTC: BLACK THREADED & COUPLED, GPE: GALVANIZED PLAIN END.		② O.D.: OUTSIDE DIAMETER, Thick.: Wall Thickness Unit: 단위 (M: mm, I: Inch)		③ Unit: 단위 (M: Meter, F: Feet, I: Inch)		④ B: BASE METAL (모재부), W: WELD METAL (용접부)			⑤ H: HEAT(LADLE) ANALYSIS 열연분석, P: PRODUCT ANALYSIS		⑥ T.P: TEST PRESSURE (테스트 압력) U.T: ULTRASONIC TEST, M.T: MAGNETIC PARTICLE TEST (Special End Area Test)		⑦ G: Good ⑧ NDT: 비파괴검사, E.T: EDDY CURRENT TEST		⑨ CVN IMPACT TEST SPECIMEN SIZE: a: FULL SIZE, b: 7.5x10, c: 6.7x10, d: 5.0x10 e: 3.3x10, f: 2.5x10			⑩ Tensile Test (Strip Type Specimen: Width) : < 3-1/2" -> 19mm, 4" - 7-5/8" -> 25mm 8-5/8" -> 38mm < 8-5/8" Pipe Body : L90 8-5/8" < Pipe Body : T180, Seam Weld : W		* Reference Indicator for NDT : N10 3.2mm(0.125") * Min. temperature for Heat Treatment : Min. 1,020°C																									
SIGNATURE																				SIGNATURE																											
																				MANAGER OF QUALITY ASSURANCE TEAM																											
SURVEYOR TO :																																															

QC-12-22

NEXTEEL CO., LTD

A4(210x297)

증명서번호  
CERTIFICATE No. : 130122-01  
계약번호  
CONTECT(P/O) No. : STK-55398  
발급일자  
ISSUED DATE : 2013-01-22  
제종명  
COMMODITY : E.R.W. STEEL PIPE  
제종규격  
SPECIFICATION : API 5L X52M PSL2  
API 5L 44TH EDITION  
NACE MR0175 HARDNESS ONLY

페이지  
page : 15 of 34

# 검사증명서 INSPECTION CERTIFICATE

EN10204 TYPE 3.1 B-1991



넥스틸㈜  
NEXTEEL CO., LTD.

고객사  
CUSTOMER : JD FIELDS & COMPANY

본사 공장 : 경북 포항시 남구 대송면 대라리  
767-1번지  
HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun,  
Nam-Gu, Pohang City, KyungBuk,  
Korea.

ITEM NO.	관종 TYPE OF PIPE END	호칭규격 NOMINAL SIZE	치수 Dimension 외경 x 두께 x 길이 (O.D x Thick. x Length)	수량 QUANTITY (PCS)	중량 TOTAL WEIGHT (kg)	제강번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2.1INCH)						화합성분 CHEMICAL COMPOSITION (%)												수압시험 HYDRO-STATIC TEST		충격시험 IMPACT TEST		경도시험 HARDNESS		부식시험 CORROSION		비고 RE-MARK						
							항복강도 YIELD STRENGTH (MPa)	인장강도 TENSILE STRENGTH (MPa)	장벽 용 YIELD RATIO (%)	연신율 EL (%)	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Sol-Al	Ti	B	Nb	Ceq.	H-Time:5sec	T.P. (PSI)	RE-SULT	충격 에너지 ABSORBED ENERGY(J)	MESS TEST	Corrosion TEST								
																																B		W	-4	-3	-4	-2	-3
							④		⑤		⑥		⑦		⑧		⑨		⑩		⑪		⑫		⑬		⑭		⑮		⑯								
1	BPE	8-5/8"	8.625" x 0.322" x 42'	430	234,076	S860875	61,190	72,070	85	42	H	646	186	970	137	31	2	1	21	Tr	1	Tr	Tr	210	0.12	2,930	G	1:136	1:126	92									
							60,890	71,770	85	43	P	643	184	968	134	30	1	2	20	Tr	1	Tr	Tr	200	0.12			2:134	2:121										
							60,990	71,670	85	43	P	644	185	967	135	29	2	2	18	Tr	2	Tr	Tr	200	0.12			3:120	3:110										
2	BPE	10-3/4"	10.750" x 0.219" x 42'	485	227,722	SP54961	66,270	73,520	90	40	H	677	190	964	120	14	2	1	17	Tr	Tr	Tr	2	190	0.13	1,820	G	1:142	1:121	94									
							65,970	73,220	90	40	P	675	189	962	119	13	2	2	16	Tr	Tr	Tr	10	2	180	0.13			2:136	2:115									
							66,070	73,320	90	41	P	676	187	963	117	12	1	1	14	Tr	Tr	Tr	20	1	170	0.12			3:124	3:117									
				431	202,396	SP54964	64,530	73,080	88	41	H	667	190	976	134	22	2	2	26	Tr	1	Tr	Tr	2	190	0.13	1,820	G	1:144	1:122	90								
							64,330	72,880	88	41	P	664	187	974	132	20	1	1	24	Tr	2	Tr	Tr	20	1	180	0.12			3:126	3:116								
							64,230	72,780	88	42	P	665	188	975	133	21	1	2	23	Tr	1	Tr	Tr	20	2	190	0.12			4:124	4:115								
			** SUB TOTAL **	1,346	664,194																																		

열처리 HEAT TREATMENT (WELD SEAM) G  
외관, 치수검사 VISUAL & DIMENSION G  
편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST G  
전개시험 REVERSE FLATTENING TEST G  
용접부연성시험 WELD DUCTILITY TEST G  
압박시험 FLARING TEST G  
잔류자장시험 RESIDUAL MAGNETISM TEST G  
중압시험 CRUSH TEST G  
직각도 STRAIGHTNESS G  
관통시험 DRIFT TEST G  
비파괴검사 ① NONDESTRUCTIVE TEST (NDT) U.T. SEAM FULL BODY M.T.

① BPE: BLACK PLAIN END. ② O.D.: OUTSIDE DIAMETER. Thick.: Wall Thickness  
BPE: BLACK BEVELLED END. Unit 단위(M: mm, I: Inch)  
BTE: BLACK THREADED END. ③ Unit 단위: (M: Meter, F: Feet, I: Inch)  
BTO: BLACK THREADED & COUPLED. ④ B: BASE METAL(모재부), W: WELD METAL(용접부)  
GPE: GALVANIZED PLAIN END. ⑤ H: HEAT(LADLE) ANALYSIS 열연분석, P: PRODUCT ANALYSIS  
⑥ Chemical Composition Unit:-4:×1/10000,-3:×1/1000,-2:×1/100(The test value less than each unit is regarded as Tr)  
\* Tr: It is within the standard range and include trace element. ⑦ Carbon Equivalent(동가탄소량): C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+Se

⑧ T.P.: TEST PRESSURE(테스트 압력) ⑨ G: Good ⑩ NDT: 비파괴검사, E.T.: EDDY CURRENT TEST  
U.T.: ULTRASONIC TEST, M.T.: MAGNETIC PARTICLE TEST (Special End Area Test)  
⑪ CWN IMPACT TEST SPECIMEN SIZE : a: FULL SIZE, b: 7.5x10, c: 6.7x10, d: 5.0x10, e: 3.3x10, f: 2.5x10

\* Tensile Test (Strip Type Specimen Width)  
: ≤ 3-1/2" → 19mm, 4" → 7-5/8" → 25mm  
8-5/8" ≤ → 38mm  
< 8-5/8" Pipe Body : L90  
8-5/8" ≤ Pipe Body : T180, Seam Weld : W  
\* Reference Indicator for NDE : N10-3.2mm(0.125")  
\* Min. temperature for Heat Treatment : Min. 1,020°C

SIGNATURE  
본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다.  
WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.  
SURVEYOR TO :  
SIGNATURE  
MANAGER OF QUALITY ASSURANCE TEAM

증명서번호  
CERTIFICATE No. : 130214-01  
계약번호  
CONTACT(P/O) No. : STK-55448  
발급일자  
ISSUED DATE : 2013-02-14  
제품명  
COMMODITY : E.R.W. STEEL PIPE  
제품규격  
SPECIFICATION : API 5L X52M PSL2  
API 5L 44TH EDITION  
NACE MR0175 HARDNESS ONLY

페이지  
Page : 15 of 20

# 검사증명서 INSPECTION CERTIFICATE

EN10204 TYPE 3.1 B-1991



넥스틸  
NEXTEEL CO., LTD.

본사 공장 : 경북 포항시 남구 대송면 대각리  
767-1번지  
HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun,  
Nam-Gu, Pohang City, KyungBuk,  
Korea.

고객사  
CUSTOMER : JD FIELDS & COMPANY

ITEM NO.	관공 TYPE OF PIPE END	호칭경 NOMINAL SIZE	치수 Dimension 외경 x 두께 x 길이 (O.D x Thick. x Length)	수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	재질번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)								화학성분 CHEMICAL COMPOSITION(%)														수압시험 HYDRO-STATIC TEST H-Time:5sec		충격시험 IMPACT TEST 흡수 에너지 ABSORBED ENERGY(J) @		경도시험 HARDNESS TEST HV HIC SSCC		비고 REMARK
							항복강도 YIELD STRENGTH (MPa)	인장강도 TENSILE STRENGTH (psi (MPa))		항복율 YIELD RATIO (%)	연신율 EL. (%)	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Nb	Ti	B	No.	Ceq.	T.P. (PSI)	RE-SULT	① (°C) 27 J T		HBS	HV	HIC	SSCC	
								B	W																				②	③					
1	BBE	6-5/8"	6.625" x 0.432" x 42'	116	63,213	SB62923	62,930	73,520	85	43	H	654	185	1124	120	29	3	1	11	Tr	Tr		10	1	230	0.13	2,970	G	1:122	1:106	90				
							62,630	73,220	85	43	P	651	182	1122	119	27	2	2	9	Tr	Tr		10	2	220	0.13			2:129	2:108					
							62,730	73,320	85	43	P	652	184	1123	117	28	2	2	10	Tr	Tr		10	1	230	0.13			3:133	3:113					
2	BBE	8-5/8"	6.625" x 0.322" x 42'	245	133,103	SP56730	60,900	71,050	85	43	H	662	184	973	150	11	2	1	14	Tr	1		20	3	180	0.12	2,930	G	1:144	1:121	91				
							60,600	70,750	71,750	85	45	P	650	181	970	147	9	1	2	12	Tr	2		10	2	180	0.12			2:138					2:135
							60,700	70,850	71,850	85	44	P	661	182	972	149	10	1	1	11	Tr	2		20	3	180	0.12			3:143					3:114
							62,210	72,500		85	43	H	604	179	957	128	16	2	1	16	Tr	1		20	3	190	0.11	2,930	G	1:138					1:109
							61,910	72,200	73,200	85	44	P	601	177	955	127	15	1	1	14	Tr	2		10	2	190	0.11			2:145					2:125
				560	305,090	SP56732	62,010	72,300	73,300	85	43	P	603	178	954	125	13	1	2	15	Tr	1		10	2	180	0.11			3:137	3:104				
			** SUB TOTAL **	921	501,406																														
열처리 HEAT TREATMENT (WELD SEAM)		외관, 치수검사 VISUAL & DIMENSION		편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST		전개시험 REVERSE FLATTENING TEST		용접부연성시험 WELD DUCTILITY TEST		압축시험 FLARING TEST		잔류자장시험 RESIDUAL MAGNETISM TEST		충압시험 CRUSH TEST		직격도 STRAIGHTNESS		관용시험 DRIFT TEST		비파괴검사 ㉓ NONDESTRUCTIVE TEST (NDT) U.T M.T SEAM FULL BODY															
G		G		G						G		G				G		G		G															
NOTE	① BBE: BLACK BEVELLED END, ② O.D.: OUTSIDE DIAMETER, Thick.: Wall Thickness, Unit 단위 (M: mm, I: Inch)		③ Unit 단위: (M: Meter, F: Feet, I: Inch)		④ T.P.: TEST PRESSURE (바스프 압력), ⑤ G: Good ⑥ NOT: 비파괴검사, E.T: EDDY CURRENT TEST		⑦ U.T: ULTRASONIC TEST, M.T: MAGNETIC PARTICLE TEST (Special End Area Test)		⑧ C.V.N: IMPACT TEST SPECIMEN SIZE: a: FULL SIZE, b: 7.5x10, c: 6.7x10, d: 5.0x10		⑨ e: 3.3x10, f: 2.5x10										* Tensile Test (Strip Type Specimen: Width) : ≤ 3-1/2" → 19mm, 4" ~ 7-5/8" → 25mm 8-5/8" ≤ → 38mm : < 8-5/8" Pipe Body : L90 8-5/8" ≤ Pipe Body : T180, Seam Weld : W * Reference Indicator for NDE : N10 3.2mm (0.125") * Min. temperature for Heat Treatment : Min. 850°C														
	⑩ Chemical Composition Unit: -4: x1/10000, -3: x1/1000, -2: x1/100 (The test value less than each unit is regarded as Tr)		⑪ Tr: it is within the standard range and include trace element ⑫ Carbon Equivalent (용가탄소량): C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+Sb																																
SIGNATURE		본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다. WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.																		SIGNATURE															
SURVEYOR TO :																				 MANAGER OF QUALITY ASSURANCE TEAM															

증명서번호 CERTIFICATE No. : 130214-01

페이지 Page : 16 of 20

계약번호 CONTACT(P/O) No. : STK-SS448

발급일자 ISSUED DATE : 2013-02-14

제종명 COMMODITY : E.R.W. STEEL PIPE

제표규격 SPECIFICATION : API 5L X52M PSL2  
API 5L 44TH EDITION  
NACE MR0175 HARDNESS ONLY

# 검사증명서 INSPECTION CERTIFICATE

EN10204 TYPE 3.1 B-1991



## 넥스틸주 NEXTEEL CO., LTD.

본사 공장 : 경북 포항시 남구 대송면 대각리 767-1번지  
HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun, Nam-Gu, Pohang City, KyungBuk, Korea.

고객사  
CUSTOMER : JD FIELDS & COMPANY

ITEM NO.	관종 TYPE OF PIPE END	호칭경 NOMINAL SIZE	치수 Dimension 외경 x 두께 x 길이 (O.D x Thick. x Length)	수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	재질 번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)				화학성분 CHEMICAL COMPOSITION(%)														수입시험 HYDRO-STATIC TEST H-Time:5sec		충격시험 IMPACT TEST 흡수 에너지 ABSORBED ENERGY(J) @		경도시험 HARDNESS TEST		부식시험 Corrosion TEST		비고 RE-MARK				
							항복강도 YIELD STRENGTH (MPa)	인장강도 TENSILE STRENGTH (psi / MPa)		항복율 YIELD RATIO (%)	연신율 EL. (%)	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	SoI-Al	TI	B	NI	Coq.	T.P	RE	(0)C. 27 J T	HRC	HV	HIC		SSCC			
								B	W			-4	-3	-4	-2	-3	-2	-3	-4	0.25% ↓	①	②	BASE	WELD	93												
												④	⑤	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑		㉒	㉓	㉔	㉕
1	BBE	8-5/8"	8.825" x 0.322" x 42'	280	152,218	SP56734	60,800	71,050	85	39	H	643	188	947	93	22	2	1	24	Tr	1	20	2	180	0.12	2,930	G	1:135	1:103								
							60,600	70,750	71,750	85	39	P	642	186	946	92	20	2	2	22	Tr	2	20	1	180	0.12			2:143	2:112							
							60,700	70,850	71,850	85	39	P	640	187	945	90	21	1	1	23	Tr	2	10	1	170	0.12			3:122	3:110							
				300	163,133	SP56737	60,470	70,910	85	42	H	626	176	948	109	26	2	1	23	Tr	Tr	20	2	180	0.11	2,930	G	1:120	1:113			89					
							60,170	70,610	71,610	85	44	P	624	173	945	107	23	1	2	21	Tr	Tr	20	1	170	0.11			2:126	2:118							
							60,270	70,710	71,710	85	43	P	624	174	947	108	24	2	2	22	Tr	Tr	20	2	170	0.11			3:120	3:94							
				475	258,683	SP56739	61,190	71,780	85	42	H	652	184	955	123	32	2	1	33	Tr	1	20	2	180	0.12	2,930	G	1:125	1:103			86					
							60,890	71,480	72,480	85	42	P	649	182	952	120	31	1	Tr	31	Tr	1	10	1	180	0.12			2:122	2:120							
							60,980	71,580	72,580	85	43	P	650	181	954	122	29	1	1	32	Tr	2	10	1	170	0.12			3:138	3:113							
				** SUB TOTAL **				1,055	574,029																												

열처리 HEAT TREATMENT (WELD SEAM)	외관, 치수검사 VISUAL & DIMENSION	편평, 굽힘시험 FLATTENING, BEND, GUIDED BEND TEST	전개시험 REVERSE FLATTENING TEST	용접부연성시험 WELD DUCTILITY TEST	안목시험 FLARING TEST	잔류자성시험 RESIDUAL MAGNETISM TEST	충압시험 CRUSH TEST	직각도 STRAIGHTNESS	관통시험 DRIFT TEST	비파괴검사: @ NONDESTRUCTIVE TEST(NOT)
G	G	G				G		G		SEAM FULL BODY U.T. M.T
<p>① BPE: BLACK PLAIN END. ② O.D.: OUTSIDE DIAMETER, Thick.: Wall Thickness. ③ T.P.: TEST PRESSURE (바스프 압력) ④ G: Good ⑤ NOT: 비파괴검사, E.T: EDDY CURRENT TEST.</p> <p>BPE: BLACK BEVELLED END. Unit 단위 (M: mm, I: Inch) U.T.: ULTRASONIC TEST, M.T: MAGNETIC PARTICLE TEST (Special End Area Test)</p> <p>BTE: BLACK THREADED END. ⑥ Unit 단위: (M: Meter, F: Feet, I: Inch) ⑦ CUN: IMPACT TEST SPECIMEN SIZE: a: FULL SIZE, b: 7.5x10, c: 6.7x10, d: 5.0x10, e: 3.3x10, f: 2.5x10</p> <p>BTC: BLACK THREADED &amp; COUPLED, ⑧ B: BASE METAL (모재부), W: WELD METAL (용접부) ⑨ R: HEAT (LADE) ANALYSIS: 열원분석, P: PRODUCT ANALYSIS</p> <p>GPE: GALVANIZED PLAIN END. ⑩ H: HEAT (LADE) ANALYSIS: 열원분석, P: PRODUCT ANALYSIS</p> <p>⑪ Chemical Composition Unit: -4: x1/10000, -3: x1/1000, -2: x1/100 (The test value less than each unit is regarded as Tr)</p> <p>* Tr: it is within the standard range and include trace element. ⑫ Carbon Equivalent (등가탄소량): C+S1/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+Si</p> <p>* Tensile Test (Str. Ip. Type Specimen: Width) : ≤ 3-1/2" -&gt; 19mm, 4" - 7-5/8" -&gt; 25mm 8-5/8" ≤ -&gt; 38mm * &lt; 8-5/8" Pipe Body : L90 8-5/8" ≤ Pipe Body : T180, Seam Weld : W * Reference Indicator for NDE : N10 3.2mm (0.125") * Min. temperature for Heat Treatment : Min. 850°C</p>										

SIGNATURE  
  
SURVEYOR TO :

본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다.  
WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.

SIGNATURE  
  
MANAGER OF QUALITY ASSURANCE TEAM

증명서번호  
CERTIFICATE No. : 130214-01  
페이지  
page : 17 of 20  
계약번호  
CONTRACT(P/O) No. : STK-55448  
발급일자  
ISSUED DATE : 2013-02-14  
재종명  
COMMODITY : E.R.W. STEEL PIPE  
제품규격  
SPECIFICATION : API 5L X52M PSL2  
API 5L 44TH EDITION  
NACE MR0175 HARDNESS ONLY

# 검사증명서 INSPECTION CERTIFICATE

EN10204 TYPE 3.1 B-1991



넥스틸  
NEXTEEL CO., LTD.

본사 공장 : 경북 포항시 남구 대송면 대각리 767-1번지  
HEAD OFFICE : 767-1, Daegak-Ri, Daesong-Myun, Nam-Gu, Pohang City, Kyungbuk, Korea.

고객사  
CUSTOMER : JD FIELDS & COMPANY

ITEM NO.	관공 TYPE OF PIPE END	요청명 NOMINAL SIZE	치수 Dimension		수량 QUANTITY (PCS)	총중량 TOTAL WEIGHT (kg)	제조번호 HEAT NO.	인장시험 TENSILE TEST (Gauge Length: 2 INCH)				화학성분 CHEMICAL COMPOSITION (%)																수압시험 HYDRO-STATIC TEST		충격시험 IMPACT TEST		경도시험 HARDNESS TEST		부식시험 CORROSION TEST		비고 RE-MARK	
			외경 x 두께 x 길이 (O.D. x Thick. x Length)					항복강도 YIELD STRENGTH (MPa)	인장강도 TENSILE STRENGTH (psi (MPa))	항복률 YIELD RATIO (%)	연신률 ELONGATION (%)	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	V	Sol-Al	Ti	B	Nb	Ceq.	T.P.	RE-	흡수 에너지 ABSORBED ENERGY (J) ⑤	HRB	HV	HIC	SSCC				
			①	② ③				B	W	(%)	EL (%)	-4	-3	-4	-2	-3	-2	-3	-4	0.2%	(PSI)	SULT	b	b													
			④	⑤				⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗	㉘	㉙	㉚	㉛				
1	BSE	8-5/8"	8.625" x 0.322" x 42'	524	285,437	SP56742	61,630	71,920	85	43	H	654	196	988	145	26	2	1	24	Tr	1	20	3	190	0.12	2,930	G	1:140	1:109			92					
							61,330	71,620	72,620	85	42	P	651	195	985	142	24	1	Tr	22	Tr	2	10	2	180	0.12			2:141	2:106							
							61,430	71,720	72,720	85	43	P	653	194	966	144	25	2	1	23	Tr	2	10	2	180	0.12			3:131	3:106							
2	BSE	8-5/8"	8.625" x 0.500" x 42'	70	57,918	SB23532	62,500	73,370	85	42	H	679	177	1135	136	18	1	1	9	Tr	1	10	Tr	220	0.13	2,970	G	1:128	1:124			SS					
							62,200	73,070	74,070	85	42	P	676	174	1133	135	16	2	1	6	Tr	1	10	Tr	220	0.13			2:139	2:125							
							62,300	73,170	74,170	85	43	P	678	178	1132	133	17	Tr	1	7	Tr	2	20	Tr	220	0.13			3:123	3:103							
				100	82,740	SB23534	64,820	75,400	85	42	H	688	193	1115	138	29	2	1	9	Tr	1	10	Tr	220	0.13	2,970	G	A:130	A:118			SS					
							64,520	75,100	76,100	85	43	P	686	192	1113	137	27	1	2	7	Tr	2	10	Tr	210	0.13			2:131	2:101							
							64,620	75,200	76,200	85	43	P	685	191	1114	135	28	1	2	8	Tr	1	20	Tr	210	0.13			3:142	3:131							
			** SUB-TOTAL **	694	426,095																							A:138	A:122								

SIGNATURE \_\_\_\_\_  
SURVEYOR TO : \_\_\_\_\_  
OC-12-22

본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다.  
WE HEREBY CERTIFY THAT THE PRODUCTS HERE IN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.

SIGNATLR \_\_\_\_\_  
MANAGER OF QUALITY ASSURANCE TEAM