

MILL TEST CERTIFICATE

A02 - EN 10204 3.1

A06 - BOL No PS111171
Release No REL019899
B01 - Product ERW STEEL PIPES

B01 - Standard ASTM A53
A06 - Customer Name
Customer PO 35104

B02 - Material GR A
A07 - Sales Order SO-011822

No.	<u>B09 - B10 - B11</u>		Length (Feet)	<u>B06 - B12 - B13</u>		Actual Weight	<u>B04</u>	<u>D51</u>	BD	<u>D03</u>	EL	NP	External Coating Norm	UL/FM	Delivery Condition
	NPS (inch)	WT (Inch)		Pieces	Feet		Pipe Type	HT Psi		HT Sec					
1	2 3/8"	0.154	21.00	598	12,558.00	45,962.28	Galvanized Plain End	2300	5	30	OK	0.00	0.00	ASTM A53	AW

No.	Heat No	<u>C71</u>																
		C	Si	Mn	P	S	Al	V	Nb	Ti	Mo	Cr	Ni	Cu	N	B	Ceq	
1	BN2356911	6.3	1.3	50.4	7.1	8.4	37.1	1.2	2.1	1.2	3.4	21.6	9.0	18.7	3.9	0.1	0.1	
2	BN2333736	6.9	1.7	49.2	10.1	10.4	31.7	1.0	1.5	0.9	5.4	22.4	7.6	12.1	0.0	0.2	0.1	
3	BN2356910	6.7	1.1	52.7	7.5	12.8	37.7	1.4	3.3	1.6	3.7	23.3	8.5	22.0	3.9	0.2	0.1	
4	BN2333731	9.2	1.7	51.6	10.7	10.4	38.7	1.5	2.6	0.7	5.9	37.1	9.0	17.4	2.4	0.3	0.1	
5	NA07981	5.2	0.6	21.5	8.0	11.0	28.9	0.0	0.0	0.3	18.8	38.0	62.1	203.6	0.0	0.0	0.1	
6	NA07804	6.3	0.8	21.4	5.8	11.0	28.8	0.0	0.0	0.5	16.7	37.4	60.6	186.2	5.3	0.1	0.1	
7	L2126159	8.9	1.0	47.2	7.9	16.6	60.0	1.3	2.6	1.2	3.9	47.7	25.8	46.4	0.7	0.5	0.1	
8	MA09137	9.8	2.1	60.0	12.5	10.2	30.8	2.3	2.2	1.1	14.8	63.7	60.3	178.9	4.8	0.2	0.1	
9	D23332542	6.8	1.4	61.0	10.7	11.5	66.5	2.2	2.6	2.1	3.2	26.4	42.1	57.3	5.2	0.1	0.1	
10	BN2317235	6.3	0.9	50.1	8.6	5.4	25.3	1.0	1.5	0.7	4.3	36.0	6.7	14.8	3.0	0.2	0.1	
11	Z3750926	9.1	0.8	34.7	16.1	3.5	48.7	1.4	3.5	1.0	4.2	20.7	12.6	17.7	4.7	0.1	0.1	
12	Z3750918	9.5	0.7	34.3	16.0	4.1	45.6	0.5	1.1	0.5	3.5	19.8	12.8	17.1	0.5	0.1	0.1	
13	BN2356913	7.1	0.3	51.6	6.3	11.2	31.8	1.5	3.5	1.1	5.5	29.7	8.1	15.4	2.3	0.2	0.1	

No.	Heat No	<u>C11</u>	<u>C12</u>	<u>C13</u>
		Re Psi	Rm Psi	A %
1	BN2356911	50,764.000	58,161.040	37
2	BN2333736	51,199.120	56,565.600	36
3	BN2356910	47,573.120	58,596.160	37
4	BN2333731	51,054.080	57,000.720	35
5	NA07981	45,107.440	53,374.720	45
6	NA07804	50,038.800	55,985.440	42

Description

BORUSAN MANNESMANN BORU
GEMLIK KALITE
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MILL TEST CERTIFICATE

A02 - EN 10204 3.1

A06 - BOL No	PS111171	B01 - Standard	ASTM A53	B02 - Material	GR A
Release No	REL019899	A06 - Customer Name		A07 - Sales Order	SO-011822
B01 - Product	ERW STEEL PIPES	Customer PO	35104		
7	L2126159	40,756.240	51,779.280	34	
8	MA09137	49,023.520	60,626.720	36	
9	D23332542	46,992.960	57,290.800	35	
10	BN2317235	45,542.560	55,550.320	37	
11	Z3750926	48,008.240	60,626.720	39	
12	Z3750918	50,328.880	59,466.400	35	
13	BN2356913	44,962.400	56,420.560	36	

BD	Bevel Degree	Ro	Yield Strength	1.Kind of steel	FF:Fully Killed	ITHL	Charpy Haz Longitudinal	CHMax	Charpy Haz Max
VD	Visual & Dimensions	Rm	Tensile Strength	2.Direction	L: Longitudinal	ITHD	Charpy Haz Diagonal	CHMin	Charpy Haz Min
FB	Flattenning-Bending	A%	Elongation		Q: Transverse	ITHT	Charpy Haz Transverse	CMMax	Charpy Material Max
DE	Drift Expanding	AVE	Average		ITWD	ITHD	Charpy Material Diagonal	CMMin	Charpy Material Min
C	Coating	HT	Hydrosta5c Test	3.Sampling Position	B.Base	ITMT	Charpy Material Transverse	CWMax	Charpy Welding Max
EL	Effective Length	NP	Number per Inch		W.Weld	ITMI	Charpy Material Longitudinal	CWMin	Charpy Material Min
OK	OK			4. Impact type	H.Haz	ITWT	Charpy Material Transverse	NP	Full Pipe Normalised
					U Type	CWLon	Charpy Material Longitudinal	NW	Normalised Weld Zone
					V Type	CWDia	Charpy Material Diagonal	AW	As Welded

Note
Description We hereby certify that the material described above complies with the terms of order contract.
The values for the C,Min and Si elements have been multiplied by 100 and the remaining chemical elements' values have been multiplied by 1000

Destructive Tests & Visual Inspections
DE OK - C53 VD OK - D01
FB OK - C50 - C52 C OK

Description