



BORUSAN MANNESMANN BEST CERTIFICATE

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Type of Document EN 10204 /3.1
 Contract No/Lot No 1582 / 01
 Standard ASTM A 53
 Material ASTM A 53 GR A
 Product E.R.W STEEL PIPE
 Customer SUNBELT GROUP, L.P
 Order No./LC No. 18.445
 Shipment No 403
 Remarks

Date 12/11/2008

Inspector's Stamp

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② 1 1/2" ③ 3" & ① 1" BPE sch 40. X 21'

Item	Dimension OD X WT X L (INCH)	M.Type	Pieces	Total Length (Ft)	Total Weight (Tons)	Type
1	1.315 "X .133X21.00	VB	660	13,860.00	10.560	VPE
2	1.900 "X .145X21.00	VB	1980	41,580.00	51.262	VPE
3	3 1/2 "X .216X21.00	VB	1484	31,164.00	107.166	VPE
4	5 9/16"X .258X42.00	VB	180	7,560.00	50.112	VPE

CHEMICAL ANALYSIS

Item	Heat No.	Chemical Composition(%)															
		C	Si	Mn	P	S	Al	Mo	Cr	Ni	Cu	V	N	Nb	Ti	Ceq	
		x100			x1000												
1	55309	6	1	37	15	11	41	2	21	21	19	0	9	1	1	.123	
1	930720	7	29	34	14	19	37	4	7	6	3	7	5	7	8	.129	
2	882402	8	24	33	17	14	39	8	7	6	5	3	5	8	5	.138	
2	926293	7	22	37	15	13	36	5	6	3	2	5	6	5	7	.134	
2	926302	9	2	56	21	25	30	20	82	19	29	1	11	1	1	.210	
3	882419	7	27	35	16	17	36	1	6	7	5	3	5	8	5	.130	
3	882732	8	1	52	13	17	61	0	15	9	16	1	9	0	1	.174	
3	917740	7	23	39	11	14	39	5	5	5	5	5	5	5	5	.138	
3	930718	7	22	33	12	19	37	5	5	5	5	5	5	5	5	.128	
4	835702	3	16	55	16	7	49	3	25	27	45	3	8	0	1	.133	

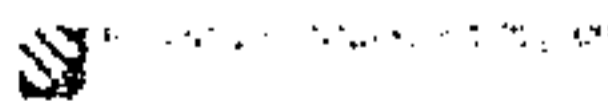
MECHANICAL PROPERTIES

Item	Heat No.	Tensile Test		Impact Test		Threads		N								
		YS	TS	E	Ave	Tem	HT	EL	NP	B	V	F	D	D		
		234	psi	psi	%	345	Min	C	psi/Se		D	D	B	E	T	C
1	55309	KLB	49390	58451	27			0	696/ 51							

QUALITY CONTROL DEPARTMENT

BORUSAN MANNESMANN
 Boru Sahayi ve Ticaret A.Ş.
 Quality Control Department

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BORUSAN

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MECHANICAL PROPERTIES

Item	Tensile Test		Impact Test		Threads								
Heat No.	YS	TS	E	Ave	Tem	HT	EL	NP	B	V	F	D	D
	psi	psi	%	Min	C	psi/Se			D	D	B	E	T
1:930720	KLB	39087	56854	32		0	696/ 5						
2:882402	KLB	39087	56854	32		0	1203/ 5						
2:926293	KLB	39087	56854	32		0	1203/ 5						
2:926302	KLB	60899	63915	40		0	1203/ 5						
3:882419	KLB	39087	56854	32		0	2218/ 5						
3:882732	KLB	47674	57103	51		0	2218/ 5						
3:917740	KLB	39087	56854	32		0	2218/ 5						
3:930718	KLB	39087	56854	32		0	2218/ 5						
4:835702	KLB	55755	64827	25		0	2000/ 5						

QUALITY CONTROL DEPARTMENT

BORUSAN MANNESMANN

Boru Sanayi ve Ticaret A.Ş.

Quality Control Department

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BD.: Bevel Degree

VD.: Visual&Dimensions

FB.: Flattenning-Bending

DE.: Drift Expanding

C.: Coating

EL.: Effective Length

G.: Good

* We hereby certify that the material described above complies with the terms of order contract

YS:Yield Stress

TS:Tensile Strength

E.: Elongation

Ave: Average

HT.: Hydrostatic Test

NP.: Number per inch

M.Type: Manuf.type

*1.L=Ladle,P=Product Analysis

*2.Kind of Stell:K=Killed

*3.Direction:L=Longitudinal
Q=Transverse

*4.Sampling Position:B=Base
W=Weld

*5.Impact Type :U Type,V Type

