

COPY

QUALITY CERTIFICATE



P/O No. : 17079
L/C No. : M930448

CERTIFICATE No. : 140225-A178

ISSUED DATE : 2014.02.25

MANUFACTURED No. : 14-02-007

COMMODITY : E.R.W. STEEL PIPE
API 5L X-42 PSL1
SPECIFICATION : /ASTM A53B

HEAD OFFICE : SHINAN B/D 15F, 943-19, DAECHI-DONG, KANGNAM-GU, SEOUL, KOREA
DANGJIN PLANT : 131, BUGOKGONGDAN STREET, SONGAK-EUP, DANGJIN-SI, CHUNGCHEONGNAM-DO, KOREA

SUPPLIER : HUSTEEL CO., LTD.
PLESA ANAHUAC
CUSTOMER : Y CIAS., S.A. DE C.V.

NO.	HEAT_NO	QUAN-TITY	TYPE	NOMINAL SIZE	ORDER SIZE			WEIGHT	TENSILE TEST					CHEMICAL COMPOSITION(%)																						
					O.D	W.T	LENGTH		DIR.	TS	YS	EL	YR	WTS	DIV	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CEQ	PCM						
					inch	inch	ft									PSI			%	%	PSI	-2			-3			-4			-5		-3			
01	09489	131	BPEB	12	12.750	0.250	20	33.41	T	67,585	55,112	38	82	71,791	H	15	1	64	15	7	10	10	20	10	10	10	10									
	M93936	188	BPEB	12	12.750	0.250	20	33.41	T	68,600	58,593	36	85	72,806	P	15	1	64	15	8	12	7	15	12	10	7	7									
	SP80353	94	BPEB	12	12.750	0.250	20	33.41	T	77,302	64,539	31	83	81,508	H	15	13	87	8	3	20	10	20	TR	TR	TR	TR	20								
															P	15	13	88	9	3	20	10	19	12	17	11	20									
															P	15	14	87	8	3	20	11	20	13	17	11	20									

NO.	HYDROSTATIC TEST			HEAT TREATMENT	ZINC COATING TEST		THREADS		HARDNESS TEST	IMPACT TEST			*13 N · D · T (UT Or ECT)	FLATTENING OR BEND TEST	VISUAL & DIMENSION	METALLOGRAPHIC TEST	RESIDUAL MAGNETISM						
	T.P	H.T	RESULT		WZC	CST	TPI	ETL		(0) °C	DIV	Energy (Ind, J)						SIZE	GOOD	GOOD	GOOD	GOOD	GOOD
	PSI	sec																					
01	1400	5	GOOD	900																			
	1400	5	GOOD	900																			
	1400	5	GOOD	900																			

HARDNESS MAX 22 HRC AS PER NACE MR 0175
Latest edition per API 45TH(2013)/ASTM(2012)/ASME(2012)

N O T E

<p>*1.Type of Pipe Ends</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>BPE</td> <td>Black Plain Ends</td> <td>GPE</td> <td>Galvanized Plain Ends</td> </tr> <tr> <td>BPEB</td> <td>BPE Bevelled</td> <td>GPEB</td> <td>GPE Bevelled</td> </tr> <tr> <td>BTE</td> <td>Black Threaded Ends</td> <td>GTE</td> <td>Galvanized Threaded Ends</td> </tr> <tr> <td>BTC</td> <td>Black Threaded & Coupled</td> <td>GTC</td> <td>Galvanized Threaded & Coupled</td> </tr> </table>	BPE	Black Plain Ends	GPE	Galvanized Plain Ends	BPEB	BPE Bevelled	GPEB	GPE Bevelled	BTE	Black Threaded Ends	GTE	Galvanized Threaded Ends	BTC	Black Threaded & Coupled	GTC	Galvanized Threaded & Coupled	<p>*2. O.D : Outsid Diameter, W.T : Wall Thickness *3. Direction- L : Longitudinal, T : Transverse</p> <p>*4. Tensile Test -TS : Tensile Strength, YS : Yield Strength, YR : Yield Ratio, EL : Elongation, WTS : Weld tensile strength, Gauge Length : 2 inch, Y.P method : 0.5% Underload</p> <p>*5. H : Heat analysis, P : Product analysis *6. -2 : x1/100, -3 : x1/1000, -4 : x1/10000, -5 : x1/10000, Tr : Trace *7. B : Base Metal, W : Weld Line, H : Heat Affected Zone</p> <p>*8. Specimen Size -A:10x10mm, B:10x7.5mm, C:10x6.6mm, D:10x5.0mm, Direction: Transverse *9. T.P : Testing Pressure, H.T : Holding Time *10. Heat Treatment Seam Normalizing</p> <p>*11. WZC : Weight of Zinc Coating, CST : Copper Sulphate Test *12. TPI : Threads per inch, ETL : Effective length of threads *13. NDT : UT Or ECT,</p>
BPE	Black Plain Ends	GPE	Galvanized Plain Ends														
BPEB	BPE Bevelled	GPEB	GPE Bevelled														
BTE	Black Threaded Ends	GTE	Galvanized Threaded Ends														
BTC	Black Threaded & Coupled	GTC	Galvanized Threaded & Coupled														

SURVEYOR	<p>WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE ORDER AND ABOVE SPECIFICATION THIS CERTIFICATE IS ISSUED ACCORDING TO EN 10204 3.1(ISO 10474 3.1 B)</p>	<p style="font-size: 1.2em; color: blue;">Sam Jun Park</p> <p>MANAGER OF Q.A TEAM</p>
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					inch	inch	ft									-2		-3			-4			-5		-3					
02	M92558	40	BPEB	12	12.750	0.225	20	30.10	T	69,325	57,287	40	83	73,531	H	7	1	77	15	6	18	10	20	TR	10	160	10				
	M93936	223	BPEB	12	12.750	0.225	20	30.10	T	67,440	56,562	36	84	71,646	P	7	1	76	15	6	20	7	21	10	15	106	9				
	M96186	80	BPEB	12	12.750	0.225	20	30.10	T	64,684	54,242	39	84	68,890	P	8	1	76	15	6	20	6	21	10	14	107	11				
															H	7	1	78	10	4	10	10	20	TR	TR	140	10				
															P	7	1	80	10	5	15	9	22	10	15	135	7				
															P	7	1	80	10	5	15	10	22	10	15	135	7				
															H	6	1	72	15	5	11	10	20	TR	10	130	10				
															P	6	1	72	16	6	13	11	20	10	14	132	10				
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	T.P	H.T	RESULT		WZC	CST	TPI	ETL		Energy (Ind, J)	SIZE	FLANGE TEST						REVERSE FLATTENING TEST	CRUSH TEST
	PSI	sec			g/m ²	TIMES													
02	1400	5	GOOD	900															
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