

ORIGINAL

QUALITY CERTIFICATE



주식회사 휴스틸

HUSTEEL Co., Ltd.

P/O No. : 17500
L/C No. : M930642

CERTIFICATE No. : 140325-A236

ISSUED DATE : 2014.03.25

MANUFACTURED No. : 14-03-018

COMMODITY : E.R.W. STEEL PIPE

HEAD OFFICE : SHINAN B/D 15F, 943-19, DAECHE-DONG, KANGNAM-GU, SEOUL, KOREA

SUPPLIER : HUSTEEL CO., LTD.

SPECIFICATION : API 5L X-42 PSL1/ASTM A53B

DANGJIN PLANT 131, BUGOKGONGDAN STREET, SONGAK-EUP, DANGJIN-SI, CHUNGCHEONGNAM-DO, KOREA

CUSTOMER : PLESA ANAHUAC 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	
					*2		*3		*4			*6																		
01	N01861	353	BPEB	10	10.750	0.225	20	25.29	T	66,279	55,692	37	84	70,485	H	6	1	73	14	6	11	10	20	TR	10	140	10			
02	300401	189	BPEB	10	10.750	0.250	20	28.06	T	71,355	59,028	34	83	75,561	P	6	1	75	14	7	12	9	22	14	16	138	10			
	M69302	56	BPEB	10	10.750	0.250	20	28.06	T	76,577	65,409	39	85	76,867	P	6	1	75	14	7	12	10	22	15	16	138	10			
															H	17	1	83	12	2	10	10	20	30	10	10	10			
															P	17	1	84	12	3	11	6	17	25	12	10	7			
															P	17	1	84	12	3	11	7	17	26	12	10	7			
															H	7	16	104	12	1	26	10	30	TR	TR	340	10			
															P	6	18	102	11	1	27	8	30	23	9	311	12			
															P	6	18	102	11	1	27	8	30	20	10	311	11			

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	Energy (Ind. J)	SIZE					
	PSI	sec															
	*9				*10	*11	*12	*7		*8							
01	1057	5	GOOD	900													
02	1660	5	GOOD	900													
	1660	5	GOOD	900													

HARDNESS MAX 22 HRC AS PER NACE MR 0175
Latest edition per API 5L(45,2013) ASTM(2012)

N O T E

*1. Type of Pipe Ends	*2. O.D : Outsid Diameter, W.T : Wall Thickness	*3. Direction- L : Longitudinal, T : Transverse																
<table border="1"> <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	*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	*5. H : Heat analysis, P : Product analysis
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															
	*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																
	*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	*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.																

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)

MANAGER OF Q.A TEAM



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Table with columns: NO., HEAT_NO, QUANTITY, TYPE, NOMINAL SIZE, ORDER SIZE (O.D, W.T, LENGTH), WEIGHT, TENSILE TEST (TS, YS, EL, YR, WTS), CHEMICAL COMPOSITION (%), and various test parameters.

Table with columns: NO., HYDROSTATIC TEST, HEAT TREATMENT, ZINC COATING TEST, THREADS, HARDNESS TEST, IMPACT TEST, FLATTENING OR BEND TEST, VISUAL & DIMENSION, METALLOGRAPHIC TEST, RESIDUAL MAGNETISM.

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SURVEYOR
MANAGER OF Q.A TEAM