

COPY

QUALITY CERTIFICATE



HEAD OFFICE SHINAN B/D 15F, 943-19, DAECHE-DONG, KANGNAM-GU, SEOUL, KOREA
 DAEBUL PLANT 3RO; DAEBUL INDUSTRIAL COMPLEX, SAMHO-EUP, YEONGAM-GUN, JEOLLANAM-DO, KOREA

CERTIFICATE No. : 141001-352
 MANUFACTURED No. : 2014-07-203
 SUPPLIER : HUSTEEL CO., LTD.
 CUSTOMER : PLESA ANAHUAC Y CIAS, S.A. DE C.V.



Original certificate can be verified through QR Application.

P/O No. : 18285
 L/C No. : M931301
 ISSUED DATE : 2014.10.01
 COMMODITY : E.R.W. STEEL PIPE
 API 5L X-42 PSL1/
 SPECIFICATION : ASTM A53B

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			lb/ft	PSI	%	%	PSI		-2			-3			-4			-5			-3							
01	N14900	160	BPEB	12	12.750	0.225	20	30.13	T	68,745	57,287	38	83	73,386	H	6	1	78	14	5	18	10	20	TR	10	140	10								
02	N14908	240	BPEB	12	12.750	0.225	20	30.13	T	70,050	61,783	36	88	72,371	H	6	1	75	14	4	16	10	20	TR	10	130	10								
03	N14915	88	BPEB	12	12.750	0.312	20	41.48	T	68,600	57,287	38	84	72,516	H	6	1	76	15	4	17	10	20	TR	10	130	10								

NO.	HYDROSTATIC TEST			HEAT TREATMENT	ZINC COATING TEST		THREADS		HARDNESS TEST	IMPACT TEST			*13 N · D · T (UT)	FLATTENING OR BEND TEST	VISUAL& DIMENSION	METALLOGRAPHIC TEST	RESIDUAL MAGNETISM
	TP	H.T	RESULT		WZC	CST	TPI	ETL		(0) °C							
	PSI	sec	°C		g/m ²	TIMES	TPI	inch		HV	DIV	Energy (Ind,)					
01	1270	5	GOOD	930													
02	1270	5	GOOD	930													
03	1760	5	GOOD	930													

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

*1.Type of Pipe Ends

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

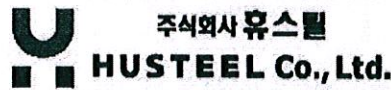
 *2. O.D : Outside Diameter, W.T : Wall Thickness
 *3. Direction- L : Longitudinal, T : Transverse
 *4. Tensile Test -TS : Tensile Strength, YS : Yield Strength, YR : Yield Ratio, EL : Elongation, WTS : Weld tensile strength, Gauge Length : 2 inch, YP method : 0.5% Underload
 *5. H : Heat analysis, P : Product analysis
 *6. -2 : x1/100, -3 : x1/1000, -4 : x1/10000, -5 : x1/100000, 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. TP : Testing Pressure, HT : 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, Reference Standard 3.2 ⌀ Drilled Hole

SURVEYOR _____
 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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SPECIFICATION : ASTM A53B

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DAEBUL PLANT 3RO, DAEBUL INDUSTRIAL COMPLEX, SAMHO-EUP, YEONGAM-GUN, JEOLLANAM-DO, KOREA

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MANUFACTURED No. : 2014-07-203

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CUSTOMER : PLESA ANAHUAC Y CIAS, S.A. DE C.V.



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

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.

*1. Type of Pipe Ends
*2. O.D : Outside Diameter, WT : Wall Thickness
*3. Direction- L : Longitudinal, T : Transverse
*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
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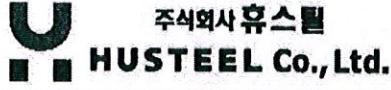
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SURVEYOR
HMC C-30-05-(21)
본 검사증명서에 명기된 규격용도의 사용자 안전상 문제가 발생할 수 있으며, 검사증명서 위·변조시 사문서 위조(형법231조)로 불이익을 당하실 수 있습니다.
HUSTEEL
MANAGER OF Q.A TEAM
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NO.	HEAT_NO	QUAN-TITY PCS	TYPE	NOMINAL SIZE	ORDER SIZE			WEIGHT lb/ft	TENSILE TEST					CHEMICAL COMPOSITION(%)																						
					O.D	WT	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	
07	N19697	104	BPEB	12	12.750	0.250	20	33.41	T	66,569	52,501	39	79	70,485	H	6	1	76	16	5	11	10	20	TR	10	130	10									
08	N14908	4	BPEB	12	12.750	0.250	20	33.41	T	68,745	56,127	40	82	72,806	H	6	1	75	14	4	16	10	20	TR	130	10										
															P	6	2	77	15	6	10	8	20	10	12	162	7									
															P	6	1	76	15	6	10	8	19	10	10	151	6									
															H	6	1	75	14	4	16	10	20	TR	130	10										
															P	7	2	74	15	4	15	9	24	10	9	167	8									
															P	7	1	73	15	4	15	8	22	10	7	156	10									

NO.	HYDROSTATIC TEST			HEAT TREATMENT	ZINC COATING TEST		THREADS		HARDNESS TEST	IMPACT TEST			*13 N · D · T (UT)	FLATTENING OR BEND TEST	VISUAL & DIMENSION	METALLOGRAPHIC TEST	RESIDUAL MAGNETISM				
	TP	H.T	RESULT		WZC	CST	TPI	ETL		HV	DIV	Energy (Ind, J)						SIZE	FLANGE TEST	REVERSE FLATTENING TEST	CRUSH TEST
	PSI	sec			°C	g/m ²	TIMES	inch													
07	1410	5	GOOD	930																	
08	1410	5	GOOD	930																	

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