INSPECTION CERTIFICATE

주식회사 휴스틸
HUSTEEL Co., Ltd.

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

O No. : 182077-00
C No. : HU20110829001
UED DATE : 2017.08.14
MMODITY : H.F.W STEEL PIPE API 5L X-42 PSL1 / 5L-B /
ECIFICATION : ASTM A53B / ASME SA53B

CERTIFICATE No. : 170814-0485
MANUFACTURED No. : 17-07-007-0
SUPPLIER : HUSTEEL CO., LTD.
CUSTOMER : HUSTEEL USA INC.

Original certificate can be verified through QReal Application.

HEAT_NO	QUAN-TITY PCS	TYPE *1	NOMINAL SIZE	ORDER SIZE O.D inch	ORDER SIZE W.T inch	ORDER SIZE LENGTH ft	WEIGHT lb/ft	TENSILE TEST DIR. *3	TS PSI *4	YS PSI *4	EL %	YR %	WTS PSI
SQ36875	6	BPEB	6-5/8	6.625	0.432	42	28.60	L	77,302	68,455	33	89	
SP86241	28	BPEB	6-5/8	6.625	0.432	42	28.60	L	76,142	72,371	34	95	
P24125	180	BPEB	8-5/8	8.625	0.322	42	28.58	T	65,409	58,448	36	89	67,150

CHEMICAL COMPOSITION(%)

HEAT_NO	DIV *5	C -2	Si -2	Mn -2	P -3	S -3	Cu -3	Ni -3	Cr -3	Mo -4	V -4	Nb -4	Ti -4	B -5	CEQ -3	PCM -3
SQ36875	H	7	20	111	7	2	19	12	16	30	10	250	16	10		
	P	7	21	111	7	2	19	8	13	10	23	219	14	10		
	P	7	21	111	7	2	19	7	13	10	23	222	14	10		
SP86241	H	7	21	115	10	1	17	9	20	20	20	240	16	20		
	P	7	21	114	10	2	19	8	15	12	21	222	14	10		
	P	7	21	114	11	2	18	7	15	11	23	219	14	10		
P24125	H	7	2	73	8	4	19	10	30	100	10	150	10	10		
	P	7	2	75	15	5	20	7	29	17	12	120	7	10		
	P	7	2	76	15	4	20	8	29	15	12	150	7	10		

HYDROSTATIC TEST T.P PSI *9	H.T sec *9	RESULT *9	HEAT TREATMENT ℃ *10	ZINC COATING TEST WZC g/㎡ *11	ZINC COATING TEST CST TIMES *11	THREADS TPI *12	THREADS ETL mm *12	HARDNESS TEST HV	IMPACT TEST (0)℃ DIV *7	Energy (Ind, J)	SIZE *8
3000	5	GOOD	950								
3000	5	GOOD	950								
2350	5	GOOD	900								

*13 N·D·T (UT Or ECT)	FLATTENING OR BEND TEST	VISUAL& DIMENSION	METALLOGRAPHIC TEST	RESIDUAL MAGNETISM
GOOD	GOOD	GOOD	GOOD	GOOD
FLANGE TEST	REVERSE FLATTENING TEST	CRUSH TEST		

EN 10204.3.1
Confirm to NACE MR 0175 and MR 0103 ; Chemical Composition, Heat Treatment, Hardness
Latest edition per API (45th,2013) ASTM(2012) ASME(2015)
RAW MATERIAL MAKER : POSCO(KOREA) - No. 10, 11
RAW MATERIAL MAKER : HYUNDAI STEEL(KOREA) - No. 01, 03, 04, 05, 06, 07, 09, 12, 14
RAW MATERIAL MAKER : JFE STEEL(JAPAN) - No. 02, 08, 13

*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	BlackThreaded & 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, Y.P 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, E :10x3.3mm, 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,

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)

Hae Gyu . Kim
MANAGER OF Q.A TEAM

C C-30-05-(21)