INSPECTION CERTIFICATE

주식회사 휴스틸
HUSTEEL Co., Ltd.

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

P/O No. : 314930-00
L/C No. : HU20110829001
ISSUED DATE : 2022.09.22
COMMODITY : H.F.W STEEL PIPE
SPECIFICATION : API 5L X42 PSL1/5LB PSL1/ ASTM A53B/ASME SA53B

CERTIFICATE No. : 220922-207
MANUFACTURED No. : 22-07-202-0
SUPPLIER : HUSTEEL CO., LTD.
CUSTOMER : HUSTEEL USA INC.

Original certificate can be verified through QReal Application

NO.	HEAT_NO	QUANTITY PCS	TYPE *1	NOMINAL SIZE	ORDER SIZE O.D inch	ORDER SIZE W.T inch	ORDER SIZE LENGTH ft	WEIGHT lb/ft	TENSILE TEST Ori. TYPE *3	TS PSI *4	YS PSI *4	EL %	YR %	WTS PSI
04	S21527	14	BPEB	18	18.000	0.500	42	93.54	T	65,989	56,997	45	86	78,462
05	SU87321	11	BPEB	18	18.000	0.500	42	93.54	T	75,706	61,928	41	81	81,653
06	SU87315	27	BPEB	18	18.000	0.500	42	93.54	T	78,607	64,249	40	81	84,408

CHEMICAL COMPOSITION(%)

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	CE IIW -3	E Pcm -3
04	H	6	1	74	14	7	40	10	30	TR	10	240	10	10		
	P	5	1	79	16	6	23	8	31	10	13	202	7	10		
	P	5	1	79	16	5	23	8	31	10	14	199	7	10		
05	H	7	19	113	15	2	34	12	29	10	10	240	8	10		
	P	6	21	117	14	2	30	9	33	10	16	304	12	10		
	P	7	21	116	14	2	29	8	33	10	15	299	12	10		
06	H	7	20	116	15	3	37	13	49	20	20	250	8	10		
	P	6	23	119	15	3	36	11	58	10	21	321	14	10		
	P	7	23	119	15	3	35	11	57	10	19	318	14	10		

NO	HYDROSTATIC TEST T.P PSI *9	H.T sec *9	RESULT	HEAT TREATMENT ℃ *10	ZINC COATING TEST WZC g/㎡ *11	ZINC COATING TEST CST TIMES *11	THREADS TPI *12	THREADS ETL Inch *12	HARDNESS TEST HV	IMPACT TEST (0)℃ DIV *7	Energy (Ind. J)	SIZE *8
04	1990	5	GOOD	950								
05	1990	5	GOOD	950								
06	1990	5	GOOD	950								

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

- Latest edition per API(46th,2018) ASTM(2020) ASME(2021)
- Confirm to NACE MR 0175 and MR 0103 : Chemical Composition, Heat Treatment, Hardness
- Manufacturing - Pipe : Hustee(Daebul Works, Korea)
  Coil Rolling / Steel Making : HYUNDAI STEEL(Dangjin Works, Korea), POSCO(Gwangyang Works, Korea)
- MELTED AND POURED IN KOREA
- EN 10204 3.1

NOTE

*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. Orientation & Type(Location) - L : Longitudinal Strip(Pipe body, L90), T : Transverse Strip(Pipe body, T180 & Seam weld, W), F : Full Size Longitudinal Size - 38.1mm(O.D 170mm above), 25.4mm(O.D 60.3 ~ 170mm), 19.1mm(O.D 50mm and below), Full Size(O.D 27.2mm and below)
*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 : Pipe body(T90), W : Seam weld(W), H : Heat Affected Zone
*8. Specimen Size - A:10x10mm, B:10x7.5mm, C:10x5.6mm, 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, Reference Standard 3.2% Drilled Hole

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)

SURVEYOR

MANAGER OF Q.A TEAM