ORIGINAL

QUALITY 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. : 18286
L/C No. : M931358
발급일자 ISSUED DATE : 2014.08.28
제품명 COMMODITY : E.R.W. STEEL PIPE
제품규격 SPECIFICATION : ASTM A500 GRADE-B

증명서번호 CERTIFICATE No. : 140828-301
제조번호 MANUFACTURED No. : 2014-07-204
공급자 SUPPLIER : HUSTEEL CO., LTD.
수요가 CUSTOMER : PLESA ANAHUAC Y CIAS.,S.A.DE C.V.

NO.	HEAT_NO	수량 QUAN-TITY	관종 TYPE	주문치수 ORDER SIZE SIDE LENGTH	W.T	LENGTH	중량 WEIGHT	인장시험 TENSILE TEST DIR.	TS	YS	EL	YR	WTS
		PCS	*1	inch	inch	ft	lb/ft	*3	PSI		%	%	PSI
				*2				*4					
01	N13379	30	BPE	12"X12"	0.312	40	47.49	L	70,920	56,707	34	80	
02	N01202	2	BPE	12"X12"	0.312	40	47.49	L	69,905	54,097	35	77	
03	N07600	10	BPE	12"X12"	0.312	40	47.49	L	73,966	60,188	32	81	
04	N13049	8	BPE	12"X12"	0.312	40	47.49	L	71,501	57,723	36	81	
05	N13049	50	BPE	12"X12"	0.375	40	55.98	L	71,501	56,707	35	79	
06	N12505	99	BPE	16"X16"	0.375	40	75.48	L	70,485	56,852	34	81	
07	N13041	13	BPE	16"X16"	0.375	40	75.48	L	67,730	55,837	31	82	
08	N12508	80	BPE	16"X16"	0.500	40	99.35	L	68,165	53,227	40	78	
09	N02425	7	BPE	16"X16"	0.500	40	99.35	L	82,523	70,920	30	86	

NO.	화학성분 CHEMICAL COMPOSITION(%) DIV	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CEQ	PCM
	*5	-2		-3						-4				-5	-3	
		*6														
01	P	14	1	52	12	6	13									
02	P	14	1	46	10	4	16									
03	P	15	1	49	10	3	10									
04	P	16	1	49	10	4	10									
05	P	14	1	48	11	4	10									
06	P	18	1	48	16	5	15									
07	P	16	1	48	16	5	15									
08	P	16	1	46	14	4	16									
09	P	16	2	50	17	3	12									

NO.	HYDROSTATIC TEST T.P (MPa)	H.T (sec)	RESULT	HEAT TREATMENT (℃)	ZINC COATING TEST WZC (g/m²)	CST (TIMES)	THREADS TPI	ETL (mm)	HARDNESS TEST HV	IMPACT TEST (0)℃ DIV	J (AVE)	SIZE
	*9			*10	*11		*12			*7		*8
01												
02												
03												
04												
05												
06												
07												
08												
09												

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

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. 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, 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

본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다.
WE HERYBY 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)

SURVEYOR

MANAGER OF Q.A TEAM

HMC C-30-05-(21)

본 검사증명서에 명기된 규격용도 외 사용시 안전상 문제가 발생할 수 있으며, 검사증명서 위·변조시 사문서 위조(형법231조)로 불이익을 당하실 수 있습니다.

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				SIDE LENGTH	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
		PCS	*1	inch	inch	ft	lb/ft	*3	PSI		%	%	PSI	*5	-2			-3					-4				-5	-3	
				*2				*4						*6															
10	N12509	59	BPE	16"X16"	0.500	40	99.35	L	69,180	58,738	35	85		P	15	1	46	14	4	16									

NO.	HYDROSTATIC TEST			HEAT TREATMENT	ZINC COATING TEST		THREADS		HARDNESS TEST	IMPACT TEST (0) ℃			*13 N · D · T (UT)	FLATTENING OR BEND TEST	VISUAL& DIMENSION	METALLOGRAPHIC TEST	RESIDUAL MAGNETISM
	T.P	H.T	RESULT		WZC	CST	TPI	ETL							GOOD		
	MPa	sec		℃	g/㎡	TIMES		mm	HV	DIV	J (AVE)	SIZE	FLANGE TEST	REVERSE FLATTENING TEST	CRUSH TEST		
	*9			*10	*11		*12			*7		*8					
10																	

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