ORIGINAL

QUALITY CERTIFICATE

주식회사 휴스틸
HUSTEEL Co., Ltd.

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

P/O No. : 14248
L/C No. : M928670
ISSUED DATE : 2012.12.31
COMMODITY : E.R.W. STEEL PIPE
SPECIFICATION : API 5L-B/ASTM A53B

CERTIFICATE No. : 121231-438
MANUFACTURED No. : 2012-12-212
SUPPLIER : HUSTEEL CO., LTD.
CUSTOMER : PLESA ANAHUAC Y CIAS.,S.A. DE C.V.

NO.	HEAT_NO	QUAN-TITY	TYPE	NOMINAL SIZE	ORDER SIZE O.D	ORDER SIZE W.T	ORDER SIZE LENGTH	WEIGHT	TENSILE TEST DIR.	TS	YS	EL	YR	WTS
		PCS	*1		inch	inch	ft	lb/ft	*3	PSI		%	%	PSI
					*2					*4				
01	M64206	462	BPEB	12 3/4	12.750	0.225	20	30.13	T	65,264	52,646	39	81	69,325

CHEMICAL COMPOSITION(%)

NO.	DIV	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	B	CEQ	PCM
	*5	-2		-3						-4				-5	-3	
		*6														
01	H	5	2	75	16	4										
	P	6	2	77	18	3	37	24	21	116	17	234	9	10		
	P	6	2	76	19	3	37	25	21	115	17	237	10	10		

NO.	HYDROSTATIC TEST T.P	H.T	RESULT	HEAT TREATMENT	ZINC COATING TEST WZC	CST	THREADS TPI	ETL	HARDNESS TEST	IMPACT TEST (0) ℃ DIV	J (AVE)	SIZE
	PSI	sec		℃	g/㎡	TIMES		inch	HV	*7		*8
	*9			*10	*11		*12					
01	890	5	GOOD	930								

*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		

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** : Outsid 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** : x1/10000, **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 Normalising
* 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 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)

MANAGER OF Q.A TEAM

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