

ORIGINAL

CERTIFICATE OF QUALITY

주식회사 휴스틸
(HUSTEEL CO.,LTD.)

계약서번호
P/O No. : 12994
L/C No. : 0173610610272655
발급일자
ISSUED DATE : 2012. 07. 25.
제품명
COMMODITY : E.R.W. STEEL PIPES
제품규격
SPECIFICATION : API 5LB / ASTM A53B

HEAD OFFICE : Shinan B/D 15F, 943-19, Daechi-dong
Kangnam-ku, SEOUL 135-845, KOREA
DANGJIN PLANT: 569-1,BUGOK-RI,SONGAK-MYEON, DANGJIN-GUN,
CHUNGCHEONGNAM-DO,KOREA
DAEBUL PLANT: 150,DAEBULSANDAN3-RO, YOUNGAM-GUN
JOLLANAM-DO, KOREA

증명서번호
CERTIFICATE No. : 20120725-238
제조번호
MANUFACTURED No.: 2012-07-211
공급자
SUPPLIER : HUSTEEL CO.,LTD.
수요가
CUSTOMER : PLESA ANAHUAC Y CIAS.,
S.A. DE C.V.

ITEM NO.	HEAT NO. (LOT)	관종 TYPE	수량 QUANTITY (PIECES)	호칭경 NOMINAL SIZE (inch)	주문치수 ORDER SIZE			중량 WEIGHT (lb/ft)	인장시험 TENSILE TEST				화학성분 CHEMICAL COMPOSITION(%)														
					바깥지름 O.D (mm)	두께 W.T. (in)	길이 LENGTH (ft)		인장강도 TS (psi)	항복강도 YS (psi)	연신율 EL (%)	항복비 YR (YS/TS)	C	Si	Mn	P	S	Cu	Cr	Ni	Mo	V	Nb	Ti	B	PCM	CEQ
					②	③			(psi)	(psi)	(%)	(YS/TS)	-2	-3	-2	-3			-4			-3					
1	52855	BPEB	85	10 3/4	273.1	0.250	20'	28.04	67005	55692	38		7	10	81	12	5	17	20	6	4	7	160	5	1		
2	389346	BPEB	11	10 3/4	273.1	0.225	20'	25.29	68890	47135	39		13	8	84	10	1	1	12	1	1	5	17	4	1		
3	389395	BPEB	63	10 3/4	273.1	0.225	20'	25.29	67730	48295	40		12	8	84	14	1	1	20	1	1	6	23	4	1		
4	M51960	BPEB	51	10 3/4	273.1	0.225	20'	25.29	70775	48876	30		6	20	75	10	4	16	21	5	2	8	167	5	1		
5	SP21988	BPEB	19	10 3/4	273.1	0.225	20'	25.29	70630	48441	39		14	11	68	8	3	18	12	2	1	2	11	4	1		
6	29286	BPEB	65	10 3/4	273.1	0.365	20'	40.49	67005	53372	40		15	13	69	23	5	10	29	6	26	33	7	4	1		
7	29287	BPEB	16	10 3/4	273.1	0.365	20'	40.49	64394	48876	39		17	8	69	14	6	13	28	8	75	4	18	3	1		
8	M48325	BPEB	1	12 3/4	323.9	0.375	20'	49.57	69905	57142	38		4	11	81	13	5	9	22	1	1	15	293	8	1		
9	M48605	BPEB	2	12 3/4	323.9	0.375	20'	49.57	71501	58158	38		4	6	83	8	5	7	24	1	1	11	317	9	1		
10	M49074	BPEB	73	12 3/4	323.9	0.375	20'	49.57	70485	57723	40		4	12	81	16	2	4	22	1	1	9	312	8	1		

ITEM NO.	수압시험 HYDROSTATIC TEST		열처리온도 HEAT TREATMENT (°C)	비파괴 시험 NDT (U.T)	경도시험 HARDNESS TEST (HV)	외주장 CIRCUMFERENCE		용접부인장강도 TENSILE STRENGTH OF WELDS (psi)	아연도금시험 ZINC COATING TEST		VISUAL & DIMENSION	FLATTENING (BEND) TEST	W D T	R G T	M G T	S.T (%)	충격시험 IMPACT TEST		Res. Mag.	비고 REMARKS
	TP (psi)	RE-SULT				END	BODY		WZC (g/m²)	CST (TIMES)							P	ENERGY(J) SIZE: ⑪		
	⑤					⑥			⑦								⑧	⑨		
1	1000	GOOD	930	ACCEPT				71066			ACCEPT	GOOD					GOOD	0.1	17	⑩Latest edition per
2	900	GOOD	930	ACCEPT				72951			ACCEPT	GOOD					GOOD	0.1	16	5LB(44th,2008)/
3	900	GOOD	930	ACCEPT				71791			ACCEPT	GOOD					GOOD	0.1	16	ASTM A53B(2007)/
4	900	GOOD	930	ACCEPT				74836			ACCEPT	GOOD					GOOD	0.1	16	
5	900	GOOD	930	ACCEPT				74691			ACCEPT	GOOD					GOOD	0.1	17	⑫HARDNESS MAX. 22 HRC AS
6	1450	GOOD	930	ACCEPT				71066			ACCEPT	GOOD					GOOD	0.1	16	PER NACE MR 0175
7	1450	GOOD	930	ACCEPT				68455			ACCEPT	GOOD					GOOD	0.1	16	
8	1260	GOOD	950	ACCEPT				73966			ACCEPT	GOOD					GOOD	0.1	16	
9	1260	GOOD	950	ACCEPT				75562			ACCEPT	GOOD					GOOD	0.1	17	
10	1260	GOOD	950	ACCEPT				74546			ACCEPT	GOOD					GOOD	0.1	17	

N ①TYPE BPE BLACK PLAIN ENDS BPEB BPE BEVELLED BTE BLACK THREADED ENDS BTC BLACK THREADED & COUPLED GPE GALVANIZED PLAIN ENDS GTE GALVANIZED THREADED ENDS GTC GALVANIZED THREAD & COUPLED
O ②O.D. OUTSIDE DIAMETER ③W.T. WALL THICKNESS ④CHEMICAL COMPOSITION CHECK-ANALYSIS/UNIT -2:1/×100 -3:1/×1000 -4:1/×10000 TR TRACE ⑤TP TESTING PRESSURE ⑥NDT NON-DESTRUCTIVE TEST
T E.T EDDY CURRENT TEST U.T ULTRASONIC TEST ⑦WZC WEIGHT OF ZINC COATING CST COPPER SULPHATE TEST ⑧WDT WELD DUCTILITY TEST RGT RING GAGE TEST MGT METALLOGRAPHIC TEST ⑨S.T STRAIGHTNESS
E ⑩P=Position B:Base Metal, CL:Center Line ⑪SPECIMEN SIZE, A:10x10mm, B:10x7.5mm, C:10x6.7mm, D:10x5.0mm, ⑫RES.MAG.: RESIDUAL MAGNETISM

SIGNATURE _____ 본 제품은 관련 규격이 정한 시험 및 검사에 합격하였음을 증명합니다.
WE HEREBY CERTIFY THAT THE PRODUCTS HEREIN HAVE BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ORDER.
SIGNATURE *[Signature]*
MANAGER OF QUALITY ASSURANCE TEAM

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					②	③						-2	-3	-2	-3			-4						-3			
11	M49078	BPEB	9	12 3/4	323.9	0.375	20'	49.57	71355	59463	40		4	14	84	10	2	5	24	1	1	9	328	9	1		
12	389274	BPEB	19	18	457.0	0.375	20'	70.60	74836	51051	37		18	18	86	8	4	9	16	7	29	4	18	5	1		
13	579134	BPEB	13	18	457.0	0.375	20'	70.60	76142	51486	41		19	24	83	15	3	8	11	8	26	9	22	5	1		
14	M50898	BPEB	18	24	610.0	0.375	20'	94.63	70195	56562	39		6	12	79	13	5	17	20	6	4	5	261	6	1		
15	M50903	BPEB	16	24	610.0	0.375	20'	94.63	69470	57577	41		6	12	81	12	6	18	21	9	11	7	281	6	1		

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	TP (psi)	RE-SULT				END	BODY		WZC (g/㎡)	CST (TIMES)							P	ENERGY(J) SIZE: ⑩		
	⑤					⑥			⑦								⑧			
11	1260	GOOD	950	ACCEPT				75416			ACCEPT	GOOD				GOOD	0.1		17	①Latest edition per 5LB(44th,2008)/ ASTM A53B(2007)// ②HARDNESS MAX. 22 HRC AS PER NACE MR 0175
12	890	GOOD	950	ACCEPT				78897			ACCEPT	GOOD				GOOD	0.1		17	
13	890	GOOD	950	ACCEPT				80203			ACCEPT	GOOD				GOOD	0.1		16	
14	670	GOOD	950	ACCEPT				74256			ACCEPT	GOOD				GOOD	0.1		16	
15	670	GOOD	950	ACCEPT				73531			ACCEPT	GOOD				GOOD	0.1		17	

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