

ORIGINAL

QUALITY CERTIFICATE

주식회사 휴스틸
(HUSTEEL CO.,LTD.)

지령서번호
P/O No. : 126912
L/C No. : M927858
발급 일자
ISSUED DATE : 2012. 07. 09.
제품명
COMMODITY : E.R.W. STEEL PIPES
제품규격
SPECIFICATION : API 5L B / ASTM A53B

□ HEAD OFFICE : Shinan 8/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, OAEBULSANDANG-RO, YOUNGAM-GUN
JOLLANAM-DO, KOREA

증명서번호
CERTIFICATE No. : 20120709-210
제조번호
MANUFACTURED No. : 2012-08-204
공급자
SUPPLIER : HUSTEEL CO., LTD.
수요자
CUSTOMER : PLESA ANAHUAC Y CIAS., S.A. DE C.V.

ITEM NO.	HEAT NO. (LOT)	관종 TYPE	수량 QUANTITY (PIECES)	표명경 NOMINAL SIZE (inch)	주문자수 ORDER SIZE			중량 WEIGHT (lb/ft)	인장시험 TENSILE TEST				06 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	②	②		①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①
1	389345	BPEB	88	10 3/4	273.1	0.225	20'	25.29	68800	48150	39		15	5	83	13	1	1	13	1	1	6	18	3	1		
2	389346	BPEB	158	10 3/4	273.1	0.225	20'	25.29	68890	47135	38		13	8	84	10	1	1	12	1	1	5	17	4	1		
3	389395	BPEB	411	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	281727	BPEB	264	12 3/4	323.9	0.225	20'	30.10	70775	48586	38		13	16	87	11	1	1	11	1	1	8	29	6	1		
5	281843	BPEB	69	12 3/4	323.9	0.225	20'	30.10	68310	47860	41		15	6	84	13	2	1	11	1	1	5	15	3	1		
6	389345	BPEB	114	12 3/4	323.9	0.225	20'	30.10	68165	47280	40		13	14	84	14	3	1	17	1	1	11	32	7	1		
7	389346	BPEB	76	12 3/4	323.9	0.225	20'	30.10	68035	49891	39		15	9	85	12	2	1	13	1	1	7	18	4	1		
8	SP18949	BPEB	30	12 3/4	323.9	0.225	20'	30.10	67440	46845	40		14	16	72	15	4	27	14	3	1	8	14	4	1		
9	M64206	BPEB	65	12 3/4	323.9	0.250	20'	33.41	70340	47425	37		17	14	84	15	2	12	24	12	50	5	27	5	1		
10	M64999	BPEB	45	12 3/4	323.9	0.250	20'	33.41	70775	47425	41		18	13	82	16	3	12	23	12	47	3	21	4	1		

ITEM NO.	수압시험 HYDROSTATIC TEST		열처리온도 HEAT TREATMENT (°C)	비파괴 시험 NDT (U.T)	경도시험 HARDNESS TEST (HV)	외주경 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				WZC (g/m²)	CST (TIMES)		P	ENERGY(J) SIZE: ①										
	①	①				①	①		①	①										
1	900	GOOD	930	ACCEPT		END	BODY	72661			ACCEPT	GOOD				0.1			17	
2	900	GOOD	930	ACCEPT				72951			ACCEPT	GOOD				0.1			16	
3	900	GOOD	930	ACCEPT				71791			ACCEPT	GOOD				0.1			16	
4	760	GOOD	930	ACCEPT				74836			ACCEPT	GOOD				0.1			16	
5	760	GOOD	930	ACCEPT				72371			ACCEPT	GOOD				0.1			17	
6	760	GOOD	930	ACCEPT				72226			ACCEPT	GOOD				0.1			16	
7	760	GOOD	930	ACCEPT				73086			ACCEPT	GOOD				0.1			17	
8	760	GOOD	930	ACCEPT				71501			ACCEPT	GOOD				0.1			17	
9	840	GOOD	930	ACCEPT				74401			ACCEPT	GOOD				0.1			16	
10	840	GOOD	930	ACCEPT				74836			ACCEPT	GOOD				0.1			16	

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 ②Q.D. OUTSIDE DIAMETER ③W.T. WALL THICKNESS ④CHEMICAL COMPOSITION CHECK-ANALYSIS/UNIT -2/1X100 -3/1X1000 -4/1X10000 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:10x8.7mm, D:10x5.0mm, ⑫RES.MAG. : RESIDUAL MAGNETISM

SIGNATURE: _____
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: _____
MANAGER OF QUALITY ASSURANCE TEAM

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U 주식회사 휴스틸
■ ■ (HUSTEEL CO.,LTD.)

계약번호 : 128912
 P/O No. : M927858
 발행일자 : 2012. 07. 09.
 COMMODITY : E.R.W. STEEL PIPES
 SPECIFICATION : API 5LB / ASTM A53B

HEAD OFFICE : Shinan B/D 15F, 943-19, Daechi-dong
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 DANGJIN PLANT: 599-1, BUGOK-RI, SONGAK-MYEON, DANGJIN-GUN,
 CHUNGCHONGNAM-DO, KOREA
 DAEBUL PLANT: 150, DAEBULSANDANG3-RO, YOUNGAM-GUN
 JOLLANAM-DO, KOREA

증서번호 : 20120709-210
 제조번호 : 2012-06-204
 SUPPLIER : HUSTEEL CO., LTD.
 CUSTOMER : PLESA ANAHUAC Y CIAS., S.A. DE C.V.

ITEM NO.	HEAT NO. (LOT)	관공 TYPE	수량 QUANTITY (PIECES)	외경 NOMINAL SIZE (inch)	주문지수 ORDER SIZE			중량 WEIGHT (lb/ft)	인장시험 TENSILE TEST				화합성분 CHEMICAL COMPOSITION(%)														
					바깥지름 O.D (mm)	두께 W.T. (in)	길이 LENGTH (ft)		인장강도 TS (psi)	항복강도 YS (psi)	연신율 EL (%)	장축비 YR (YS/TS)	C	SI	Mn	P	S	Cu	Cr	NI	Mo	V	Nb	Ti	B	PCM	CEQ
					②	③	④		⑤	⑥	⑦	-2	-3	-2	-3	-4	-3										
11	389461	BPEB	1	12 3/4	323.9	0.250	20'	33.41	79966	49021	37		16	15	85	13	2	4	17	5	1	4	18	4	1		
12	M85106	BPEB	86	12 3/4	323.9	0.250	20'	33.41	69815	45105	34		17	15	83	14	2	6	19	7	2	4	21	5	1		
13	M49062	BPEB	1	12 3/4	323.9	0.250	20'	33.41	67295	52066	40		7	17	80	13	6	16	21	7	20	10	181	6	1		
14	281727	BPEB	2	12 3/4	323.9	0.375	20'	49.61	73921	52066	40		13	16	87	10	1	1	11	1	1	9	30	6	1		
15	388992	BPEB	49	12 3/4	323.9	0.375	20'	49.61	74401	51051	39		13	10	87	8	2	1	20	1	1	8	29	5	1		
16	389348	BPEB	6	12 3/4	323.9	0.375	20'	49.61	73576	50181	40		13	13	87	13	1	1	12	1	1	9	31	7	1		
17	M48325	BPEB	16	12 3/4	323.9	0.375	20'	49.61	69905	57142	38		4	11	81	13	5	9	22	1	1	15	293	8	1		
18	M48805	BPEB	39	12 3/4	323.9	0.375	20'	49.61	71501	58158	38		4	6	83	8	5	7	24	1	1	11	317	9	1		
19	M49074	BPEB	161	12 3/4	323.9	0.375	20'	49.61	70485	57723	40		4	12	81	16	2	4	22	1	1	9	312	8	1		
20	M49078	BPEB	47	12 3/4	323.9	0.375	20'	49.61	71355	59468	40		6	15	82	11	2	5	21	1	1	8	312	7	1		

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	TP (psi)	RE-SULT				WZC (g/m²)	CST (TIMES)		P	ENERGY(J) SIZE: ⑨										
11	840	GOOD	930	ACCEPT				76027			ACCEPT	GOOD							16	
12	840	GOOD	930	ACCEPT				73876			ACCEPT	GOOD							18	
13	840	GOOD	930	ACCEPT				71356			ACCEPT	GOOD							17	
14	1260	GOOD	950	ACCEPT				77882			ACCEPT	GOOD							16	
15	1260	GOOD	950	ACCEPT				78462			ACCEPT	GOOD							17	
16	1260	GOOD	950	ACCEPT				77737			ACCEPT	GOOD							16	
17	1260	GOOD	950	ACCEPT				73966			ACCEPT	GOOD							16	
18	1260	GOOD	950	ACCEPT				75562			ACCEPT	GOOD							17	
19	1260	GOOD	950	ACCEPT				74546			ACCEPT	GOOD							17	
20	1260	GOOD	950	ACCEPT				75416			ACCEPT	GOOD							17	

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 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

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