MILL'S QUALITY CERTIFICATE

SeAH SeAH Steel Corp.
(주)세아제강

HEAD OFFICE ; BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA
POHANG PLANT ; 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

증명서번호 CERTIFICATE NO. : E200704-0086-001171(5001422)
제 품 명 COMMODITY : E.R.W STEEL PIPE
제 품 규 격 SPECIFICATION : API 5LB PSL1/ASTM A53B(2005)

발 급 일 자 DATE OF ISSUE : 2007.03.30
계 약 서 번 호 L/C No. (P/O No.) : 47LI-B82946-TLJY(1103049204)
수 요 가 CUSTOMER : DUFERCO SA
주 문 자 SHIPPER : SEAH STEEL CORPORATION

NO.	HEAT NO. (BATCH NO.)	관단 TYPE *1	주문치수 ORDER SIZE	수량 QUANTITY 본수 PCS	총길이 TOTAL LENGTH	중량(M/T) WEIGHT	비고 REMARK
5	5-35843 (SHH1301180)	BBE	12 " X 0.500 " X 6.120 M	34	208.080 M	20.279	* DESCRIPTIION OF GOODS : 1,408.552MT (+/- 10 PCT) CARBON STEEL PIPES WELDED / ASTM A53 B
6	SB65465 (SHH2062010)	BBE	10 " X 0.365 " X 6.120 M	94	575.280 M	34.804	* STEEL GRADE : ASTM A53 B
7	SB65463 (SHH2062020)	BBE	10 " X 0.365 " X 6.120 M	41	250.920 M	15.181	
8	SB60953 (SHH2062120)	BBE	10 " X 0.500 " X 6.120 M	53	324.360 M	26.451	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 10 Sec. psi	RESULT	N·D·T U *2	VISUAL & DIMENSION	FLATTENING	SHOCK	COMPRESSION	RESIDUAL MAGNETISM GAUSS	BENDING *3	DRIFT	CRUSH	FLARING	FLANGE	REVERSE FLATTENING
기준 SPEC									30						
5	5-35843 (SHH1301180)	1650	G	G	G	G			G						
6	SB65465 (SHH2062010)	1430	G	G	G	G			G						
7	SB65463 (SHH2062020)	1430	G	G	G	G			G						
8	SB60953 (SHH2062120)	1950	G	G	G	G			G						

NO.	HEAT NO (BATCH NO.)	ZINC COATING TEST WEIGHT OF ZINC COAT-ING	균일성 C.S *4	알칼리 ALK *5	DESIG *6	CHEMICAL COMPOSITION(%) C	Si	Mn	P	S	CU	NI	CR	MO	V	CEQ *8	DIR *9	TENSILE TEST (Gage Length : 50mm) TENSILE STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENERGY Joule	SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT SN *11	PROTECTIVE COATING & LINING THICKNESS	P.H
						2			3		2	2	2	2	3											
						*7																				
기준 SPEC					MAX	26		120	30	30	40	40	40	15	80											
					MIN													60000	35000							
5	5-35843 (SHH1301180)				H	17	17	46	17	5																
					P	16	17	45	15	7	TR	1	1	1	1		T	70690	47220	46				G		
					P	17	18	46	17	3	1	1	1	1	1		W	71259								
6	SB65465 (SHH2062010)				H	18	2	79	14	8																
					P	18	3	79	15	10	1	1	1	TR	TR		T	71250	47360	41				G		
					P	19	2	78	14	8	1	1	1	TR	TR		W	70121								
7	SB65463 (SHH2062020)				H	19	1	82	19	8																
					P	19	2	83	20	9	1	1	1	1	1		T	71820	46510	39				G		
					P	19	TR	81	18	7	1	1	1	TR	TR		W	70974								
8	SB60953 (SHH2062120)				H	17	1	75	12	9																
					P	18	1	76	12	8	1	1	1	TR	TR		T	67700	44090	43				G		
					P	16	1	76	13	11	TR	1	2	TR	TR		W	68699								

NOTE *1 ~ *12 : Refer To The Attached Section Designation

OTHER

Surveyor :

· WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH ABOVE SPECIFICATION AND THE RESULTS OF ALL TEST ARE ACCEPTABLE.
· THE USE OF THE MATERIAL OUTSIDE THE SPECIFICATIONS INDICATED ON THIS CERTIFICATE MAY CAUSE SAFETY AND/OR MONETARY PROBLEMS. FURTHERMORE, ANY ORGANIZATION OR PERSON(S) WHO DELIBERATELY MODIFIES THE CERTIFICATE WILL BE PROSECUTED FOR FORGING AN OFFICIAL DOCUMENT (ACCORDING TO THE PROVISIONS OF THE CRIMINAL CODE 231)

Manager of Q.M Dept.

J. E. KIM

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