MILL'S QUALITY CERTIFICATE

SeAH Steel Corp.
(주)세 아 제 강

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

증명서번호 / CERTIFICATE NO. : E200706-0020-001526(5001625)
제 품 명 / COMMODITY : E.R.W STEEL PIPE
제 품 규 격 / SPECIFICATION : API 5LB PSL1/ASTM A53B(2006)

발 급 일 자 / DATE OF ISSUE : 2007.04.30
계 약 서 번 호 / L/C No. (P/O No.) : 47LI-B93402-TMA4
수 요 가 / CUSTOMER : DUFERCO SA
주 문 자 / SHIPPER : SEAH STEEL CORPORATION

NO.	HEAT NO. (BATCH NO.)	관 단 TYPE *1	주 문 치 수 ORDER SIZE			수 량 QUANTITY 본 수 PCS	총 길 이 TOTAL LENGTH	중량(M/T) WEIGHT	비 고 REMARK
31	4-36405 (SIH3301070)	BBE	16 "	X 0.250 "	X 6.120 M	3	18.360 M	1.160	
32	5-35841 (SIH3301080)	BBE	16 "	X 0.250 "	X 6.120 M	1	6.120 M	0.386	
33	C730408 (SIH3301090)	BBE	16 "	X 0.250 "	X 6.120 M	61	373.320 M	23.568	
34	C730493 (SIH3301100)	BBE	16 "	X 0.250 "	X 6.120 M	68	416.160 M	26.272	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 5 Sec. psi	HYDROSTATIC TEST 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						
31	4-36405 (SIH3301070)	660	G	G	G	G			G						
32	5-35841 (SIH3301080)	660	G	G	G	G			G						
33	C730408 (SIH3301090)	660	G	G	G	G			G						
34	C730493 (SIH3301100)	660	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	C	Si	Mn	P	S	CU	NI	CR	MO	V	CEQ *8	DIR *9	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
						CHEMICAL COMPOSITION(%)												TENSILE TEST (Gage Length : 50mm)								
						2			3		2	2	2	2	3											
						*7																				
기준 SPEC					MAX	26		120	30	30	40	40	40	15	80											
					MIN													60000	35000							
31	4-36405 (SIH3301070)				H	16	16	46	24	5																
					P	16	15	47	24	7	1	1	1	1	1		T	69260	52340	41				G		
					P	17	15	45	23	6	1	1	1	1	1		W	70406								
32	5-35841 (SIH3301080)				H	15	18	42	16	5																
					P	14	18	42	16	4	TR	1	1	1	TR		T	71110	54040	41				G		
					P	14	17	43	17	3	1	1	1	1	TR		W	69694								
33	C730408 (SIH3301090)				H	15	3	78	14	6																
					P	14	4	77	13	8	1	1	1	1	1		T	71400	54040	41				G		
					P	14	4	79	15	5	1	1	1	2	1		W	73535								
34	C730493 (SIH3301100)				H	15	2	77	19	7																
					P	14	1	76	18	6	1	1	1	1	2		T	72820	52200	44				G		
					P	15	2	78	19	5	1	1	1	1	2		W	72539								

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

주식회사세아제강 SeAH 포항공장품질경영팀장