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
39	5-38473 (SIH4022070)	BBE	18 "	X 0.375 "	X 6.120 M	14	85.680 M	8.983	
40	6-24278 (SIH4031060)	BBE	20 "	X 0.375 "	X 6.120 M	70	428.400 M	50.029	
41	C730272 (SIH4111040)	BBE	14 "	X 0.250 "	X 6.120 M	55	336.600 M	18.549	
42	C730271 (SIH4111050)	BBE	14 "	X 0.250 "	X 6.120 M	57	348.840 M	19.225	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST 5 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						
39	5-38473 (SIH4022070)	880	G	G	G	G			G						
40	6-24278 (SIH4031060)	790	G	G	G	G			G						
41	C730272 (SIH4111040)	750	G	G	G	G			G						
42	C730271 (SIH4111050)	750	G	G	G	G			G						

NO.	HEAT NO (BATCH NO.)	ZINC COATING TEST WEIGHT OF ZINC COAT-ING	규일성 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											
기준 SPEC					MAX	26		120	30	30	40	40	40	15	80											
					MIN													60000	35000							
39	5-38473 (SIH4022070)				H	16	18	46	23	8																
					P	15	17	47	23	10	TR	1	1	1	TR		T	70260	48780	45				G		
					P	16	19	45	25	10	TR	1	2	1	1		W	70121								
40	6-24278 (SIH4031060)				H	16	17	44	20	5																
					P	15	16	45	22	3	1	1	1	TR	TR		T	70120	49070	46				G		
					P	16	17	45	21	4	1	1	1	TR	TR		W	68130								
41	C730272 (SIH4111040)				H	15	1	77	19	6																
					P	14	2	78	21	7	1	1	1	1	2		T	75240	55180	42				G		
					P	16	2	76	20	6	1	2	1	1	1		W	74815								
42	C730271 (SIH4111050)				H	15	2	78	16	10																
					P	15	3	79	16	8	1	1	1	1	2		T	74670	55040	43				G		
					P	14	2	77	14	12	1	1	1	1	2		W	76806								

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 포항강철공장품질경영팀장인)