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MILL'S QUALITY CERTIFICATES

SeAH SeAH Steel Corp.
(주)세아제강
HEAD OFFICE ; BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA
POHANG PLANT ; 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

발급일자 DATE OF ISSUE : 2007.09.21
증명서번호 CERTIFICATE NO.: E200709-0081-002317(5002028)
계약서번호 L/C No. (P/O No.) : PLESA
제품명 COMMODITY : E.R.W STEEL PIPE
수요가 CUSTOMER : DUFERCO SA
제품규격 SPECIFICATION : API 5LB PSL1/ASTM A53B(2006)
주문자 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
16	ST93749 (SHH9052010)	BBE	12 " X 0.500 " X 6.120 M	29	177.480 M	17.297	PO.NO :1103054906
17	ST93751 (SHH9052020)	BBE	12 " X 0.500 " X 6.120 M	28	171.360 M	16.701	
18	ST93748 (SHH9052030)	BBE	12 " X 0.500 " X 6.120 M	29	177.480 M	17.297	
19	6-27030 (SHH9052050)	BBE	12 " X 0.500 " X 6.120 M	23	140.760 M	13.718	

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	ZINC COATING TEST WEIGHT OF ZINC COAT-ING	규격 C.S *4	실측 ALK *5	DESIG *6	C	Si	Mn	P	S	CU	NI	CR	MO	V	CEQ	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)			IMPACT TEST (℃)					
																				2			3		2	2	2	2	3													
																				*7										*8											
기준 SPEC									30										MAX	26		120	30	30	40	40	40	15	80			60000	35000								
																			MIN																					
16	ST93749 (SHH9052010)	1650	G	G	G	G			G										H	18	1	73	13	8																
																			P	18	TR	72	14	7	1	1	1	TR	TR		T	74810	46360	37				G		
																			P	19	1	72	15	6	1	1	2	TR	TR		W	75953								
17	ST93751 (SHH9052020)	1650	G	G	G	G			G										H	18	1	74	16	7																
																			P	19	1	73	18	5	1	1	1	TR	TR		T	68840	42810	40				G		
																			P	19	2	73	18	9	1	2	2	TR	1		W	66992								
18	ST93748 (SHH9052030)	1650	G	G	G	G			G										H	17	1	75	16	6																
																			P	18	1	74	14	4	1	1	1	1	1		T	65990	44230	41				G		
																			P	16	1	75	18	5	1	2	2	1	1		W	65570								
19	6-27030 (SHH9052050)	1650	G	G	G	G			G										H	16	17	46	23	6																
																			P	16	18	45	25	8	1	1	1	1	2		T	69550	47790	40				G		
																			P	17	16	46	21	5	1	2	2	1	2		W	69410								

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 포항생산품질관리팀