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MILL'S QUALITY CERTIFICATES

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 : 2007.08.31
증명서번호 CERTIFICATE NO.: E200709-0077-002313(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
11	ST93401 (SHH8162020)	BBE	12 " X 0.250 " X 6.120 M	78	477.360 M	23.920	PO.NO :1103054906
12	SB81595 (SHH8171120)	BBE	12 " X 0.406 " X 6.120 M	86	526.320 M	41.921	
13	ST93750 (SHH8171130)	BBE	12 " X 0.406 " X 6.120 M	57	348.840 M	27.785	
14	SQ14528 (SHH8201110)	BBE	10 " X 0.365 " X 6.120 M	3	18.360 M	1.111	

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	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 (℃) ENE-RGY Joule	SHEAR AREA %	HARD-NESS TEST	HEAT TREAT MENT SN *11	PROTECTIVE COATING & LINING THICK-NESS	P.H
																				CHEMICAL COMPOSITION(%)		2		3		2	2	2	2	3			TENSILE TEST (Gage Length : 50mm)			IMPACT TEST (℃)						
기준 SPEC									30										MAX	26		120	30	30	40	40	40	15	80												
																			MIN												60000	35000							
11	ST93401 (SHH8162020)	820	G	G	G	G			G										H	15	1	63	12	6															
																			P	15	TR	64	11	7	1	1	1	1	1		T	68690	46650	39				G		
																			P	15	1	63	11	8	1	1	1	1	2		W	66707								
12	SB81595 (SHH8171120)	1340	G	G	G	G			G										H	18	2	78	13	5															
																			P	18	2	77	14	3	1	1	1	TR	1		T	71250	45370	40				G		
																			P	18	3	77	15	4	1	1	1	TR	1		W	69552								
13	ST93750 (SHH8171130)	1340	G	G	G	G			G										H	18	1	74	18	7															
																			P	17	1	73	18	6	1	1	1	TR	TR		T	71400	47640	39				G		
																			P	17	TR	74	17	7	TR	1	2	TR	TR		W	69125								
14	SQ14528 (SHH8201110)	1430	G	G	G	G			G										H	17	1	78	11	8															
																			P	16	TR	79	11	8	TR	1	1	TR	1		T	69550	47220	37				G		
																			P	16	2	79	13	10	1	1	1	TR	1		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 포항공장품질경영팀장인