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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

증명서번호 / CERTIFICATE NO. : E200806-0113-001255(5002660)
제 품 명 / COMMODITY : E.R.W STEEL PIPE
제 품 규 격 / SPECIFICATION : API 5LB PSL1/ASTM A53B(2007)

발 급 일 자 / DATE OF ISSUE : 2008.06.16
계 약 서 번 호 / L/C No. (P/O No.) : 47LI-C45661-TJFE(0801844)
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
13	SQ24858 (SII4251010)	BBE	20 " X 0.375 "(3/8") X 6.120 M	33	201.960 M	23.585	
14	SP11261 (SII4251020)	BBE	20 " X 0.375 "(3/8") X 6.120 M	10	61.200 M	7.147	
15	SQ34073 (SII5022030)	BBE	14 " X 0.375 "(3/8") X 6.120 M	25	153.000 M	12.405	
16	SQ38095 (SII5162230)	BBE	18 " X 0.375 "(3/8") X 6.120 M	38	232.560 M	24.382	

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	균일성 C.S *4	알칼리 ALK *5
기준 SPEC									30									
13	SQ24858 (SII4251010)	790	G	G	G	G			G									
14	SP11261 (SII4251020)	790	G	G	G	G			G									
15	SQ34073 (SII5022030)	1130	G	G	G	G			G									
16	SQ38095 (SII5162230)	880	G	G	G	G			G									

NO.	CHEMICAL COMPOSITION(%) DESIG	C	Si	Mn	P	S	CU	NI	CR	MO	V	CEQ	DIR
		2			3		2	2	2	2	3		*8 *9
		*6	*7										
기준 SPEC	MAX	26		120	30	30	40	40	40	15	80		
	MIN												
13	H	17	1	81	15	3							
	P	16	TR	81	16	1	TR	1	1	TR	1		T
	P	18	TR	82	17	2	TR	1	1	TR	TR		W
14	H	19	1	76	11	7							
	P	18	TR	75	9	5	1	1	1	TR	TR		T
	P	20	2	76	13	5	1	1	1	TR	TR		W
15	H	18	1	76	17	5							
	P	17	TR	76	18	5	1	1	1	TR	1		T
	P	19	2	75	19	5	TR	TR	1	TR	1		W
16	H	18	1	79	11	4							
	P	17	TR	80	10	2	TR	TR	1	TR	1		T
	P	19	2	78	10	4	TR	1	1	TR	1		W

NO.	TENSILE TEST (Gage Length : 50mm) 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
기준 SPEC	60000	35000							
13	72960	48640	41				G		
14	75117								
	77490	63720	39				G		
15	78060								
	71380	48500	40				G		
16	74970								
	75500	52050	37				G		

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

OTHER
*DESCRIPTION OF GOODS : 364.507 MT (+/- 10 PCT.)PRIME ERW PIPES / GRADE: API 5L-B/ ASTM A53B.GRADE: API 5L-B/ ASTM A53B.
*PHYSICAL PROPERTIES SAME AS TENSILE TEST & IMPACT TEST.

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