MILL'S QUALITY CERTIFICATES

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.: E200812-0057-002874(5003628)

제 품 명
COMMODITY : E.R.W STEEL PIPE

제 품 규 격
SPECIFICATION : API 5L B(PSL1)/ASTM A53B

발 급 일 자
DATE OF ISSUE : 2008.12.12

계 약 서 번 호
L/C No. (P/O No.) : 47LI-C80768-TCTT(1103066336)

수 요 가
CUSTOMER : PLESA

주 문 자
SHIPPER : DUFERCO SA

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
21	SB22076 (SHIY121010)	BBE	10 " X SCH40 X 6.120 M	2	12.240 M	0.741	CONFIRM TO NACE NORM MR0175(LAST EDITION)
22	SB22422 (SHIY121030)	BBE	10 " X SCH40 X 6.120 M	5	30.600 M	1.851	*ERW: CHEMICAL COMPOSITION, HEAT TREATMENT AND HARDNESS ONLY
23	SB22419 (SHIY121050)	BBE	10 " X SCH40 X 6.120 M	8	48.960 M	2.962	*DSAW:CHEMICAL COMPOSITION AND HARDNESS ONLY
24	SB22419 (SHIY122020)	BBE	10 " X SCH40 X 6.120 M	1	6.120 M	0.370	

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						
21	SB22076 (SHIY121010)	1430	G	G	G	G			G						
22	SB22422 (SHIY121030)	1430	G	G	G	G			G						
23	SB22419 (SHIY121050)	1430	G	G	G	G			G						
24	SB22419 (SHIY122020)	1430	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							
21	SB22076 (SHIY121010)				H	17	2	75	12	6																
					P	16	1	74	13	5	TR	TR	1	TR	TR		T	71820	48640	40				G		
					P	16	2	76	14	7	TR	TR	1	TR	TR		W	73263								
22	SB22422 (SHIY121030)				H	17	1	76	19	4																
					P	17	TR	77	20	3	TR	1	1	TR	TR		T	71110	48920	39				G		
					P	18	2	76	21	6	TR	1	1	TR	TR		W	72112								
23	SB22419 (SHIY121050)				H	17	2	77	18	6																
					P	16	1	77	19	8	1	1	1	TR	TR		T	70690	49350	40				G		
					P	18	3	78	17	6	1	1	1	TR	TR		W	75970								
24	SB22419 (SHIY122020)				H	17	2	77	18	6																
					P	16	1	76	16	5	TR	1	1	TR	TR		T	72820	48780	36				G		
					P	16	1	77	18	6	1	1	1	TR	TR		W	74832								

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.

N. J. Baek