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.: E200807-0213-001540(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 : 2008.07.18

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.)	판단 TYPE *1	주문치수 ORDER SIZE	수량 QUANTITY 본수 PCS	총길이 TOTAL LENGTH	중량(M/T) WEIGHT	비고 REMARK
13	26652 (SHI5062010)	BBE	12 " X 0.375 "(3/8") X 6.120 M	59	361.080 M	26.594	
14	26475 (SHI5062070)	BBE	12 " X 0.250 "(1/4") X 6.120 M	1	6.120 M	0.307	
15	26475 (SHI5062080)	BBE	12 " X 0.250 "(1/4") X 6.120 M	94	575.280 M	28.827	
16	26474 (SHI5062110)	BBE	12 " X 0.250 "(1/4") X 6.120 M	823	5,036.760 M	252.392	

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						
13	26652 (SHI5062010)	1240	G	G	G	G			G						
14	26475 (SHI5062070)	820	G	G	G	G			G						
15	26475 (SHI5062080)	820	G	G	G	G			G						
16	26474 (SHI5062110)	820	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(%) *7												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							
13	26652 (SHI5062010)				H	16	18	61	14	5																
					P	15	18	62	13	6	TR	1	1	TR	1		T	69410	47790	40				G		
					P	17	17	62	16	4	1	1	1	TR	1		W	71845								
14	26475 (SHI5062070)				H	16	19	63	14	4																
					P	17	19	62	12	6	1	1	1	TR	1		T	71540	52050	37				G		
					P	17	20	63	13	3	1	1	1	1	1		W	74690								
15	26475 (SHI5062080)				H	16	19	63	14	4																
					P	15	19	64	15	5	1	1	1	1	1		T	72110	51910	38				G		
					P	17	19	63	13	6	1	1	1	TR	1		W	74974								
16	26474 (SHI5062110)				H	16	19	64	23	4																
					P	18	20	65	21	5	1	1	1	1	1		T	74530	53210	39				G		
					P	17	20	63	22	4	1	1	1	TR	1		W	75392								

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

OTHER DESCRIPTION OF GOODS : 1,409.329 MT (+/- 10 PCT.)PRIE ERW PIPES / GRADE: API 5L-B/ ASTM A53B.GRADE:AP 5L-B/ ASTM A53B.
PHYSICAL PROPERTIES SAME AS TENSILE TEST & IMPACTEST.

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 포항경상북도 SeAH