MILL' TEST CERTIFICATE

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.: E200605-0341-000454(5000079)
제 품 명 / COMMODITY : E.R.W STEEL PIPE
제 품 규 격 / SPECIFICATION : ASTM A500 B(2003A)

발 급 일 자 / DATE OF ISSUE : 2006.05.29
계 약 서 번 호 / L/C No. (P/O No.) : 04980PSILC05387
수 요 가 / CUSTOMER : DUFERCO SA
주 문 자 / SHIPPER : SEAH STEEL CORP

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
1	C611728 (SHG5021010)	BME	12" X 12" X 0.375 " X 40.000 FT	44	1,760.000 FT	46.412	
2	C621828 (SHG5021020)	BME	12" X 12" X 0.375 " X 40.000 FT	46	1,840.000 FT	48.522	
3	C621827 (SHG5021030)	BME	12" X 12" X 0.375 " X 40.000 FT	42	1,680.000 FT	44.302	
4	C621827 (SHG5021040)						

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST Sec.	HYDROSTATIC TEST RESULT	N·D·T *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	DESIG *6	C	Si	Mn	P	S						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 *11	PROTECTIVE COATING & LINING THICK-NESS	P.H
																				CHEMICAL COMPOSITION(%) 2			3							*7											
기준 SPEC																			MAX	30			45	45																	
																			MIN														58030	45940	23						
1	C611728				G														H	17	1	74	19	9																	
	(SHG5021010)																		P													L	70540	48350	31						
2	C621828				G														H	15	1	72	20	6																	
	(SHG5021020)																		P													L	69970	47360	29						
3	C621827				G														H	16	1	74	22	9																	
	(SHG5021030)																		P													L	70690	47500	33						
4	C621827				G														H	16	1	74	22	9																	
	(SHG5021040)																		P													L	69830	48640	32.3						

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.

Seok il Kim

주식회사세아제강 SeAH 포항강철공장품질경영팀장

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증명서번호
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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
5	C611611 (SHG5022030)	BME	12" X 12" X 0.250 " X 40.000 FT	118	4,720.000 FT	84.441	
6	C611611 (SHG5031010)	BME	12" X 12" X 0.250 " X 40.000 FT	22	880.000 FT	15.743	
7	SP52198 (SHG5032010)	BME	16" X 16" X 0.500 " X 40.000 FT	55	2,200.000 FT	103.083	
8	SP52198 (SHG5041010)	BME	16" X 16" X 0.500 " X 40.000 FT	59	2,360.000 FT	110.580	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST Sec.	RESULT	N·D·T *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	DESIG *6	C	Si	Mn	P	S						CEQ *8	DIR *9	TENSILE STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENERGY Joule	SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT *11	PROTECTIVE COATING & LINING THICKNESS	P.H
																				CHEMICAL COMPOSITION(%)												TENSILE TEST (Gage Length : 50mm)									
																				2			3																		
																				*7																					
기준 SPEC																			MAX	30			45	45								58030	45940	23							
																			MIN																						
5	C611611 (SHG5022030)				G														H	15	2	56	16	7							L	66700	49210	24							
																			P																						
6	C611611 (SHG5031010)				G														H	15	2	56	16	7							L	70260	49630	24							
																			P																						
7	SP52198 (SHG5032010)				G														H	18	1	83	12	8							L	70120	48640	29							
																			P																						
8	SP52198 (SHG5041010)				G														H	18	1	83	12	8							L	72530	46080	31							
																			P																						

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

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