# MILL'S QUALITY 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.: E200701-0393-000393(5000987)

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 : 2007.01.19

계 약 서 번 호
L/C No. (P/O No.) : 1103044853

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 |
|---|---|---|---|---|---|---|---|
| 21 | SB62790 (SHH1081050) | BME | 16" X 8" X 0.375 " X 40.000 FT | 24 | 960.000 FT | 25.315 | |
| 22 | 310167A (SHH1091010) | BME | 16" X 16" X 0.500 " X 40.000 FT | 7 | 280.000 FT | 13.120 | 59,976 |
| 23 | 310183B (SHH1091020) | BME | 16" X 16" X 0.500 " X 40.000 FT | 12 | 480.000 FT | 22.491 | |
| 24 | 110890A (SHH1091040) | BME | 16" X 16" X 0.500 " X 40.000 FT | 13 | 520.000 FT | 24.365 | |

COP

| 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 | | | | | | | | | | | | | | 58000 | 46000 | 23 | | | | | | | |
| 21 | SB62790 (SHH1081050) | | | | G | | | | | | | | | | | | | | H | 18 | 1 | 79 | 16 | 5 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 19 | 1 | 81 | 18 | 4 | | | | | | | L | 77510 | 51630 | 26 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 17 | TR | 80 | 15 | 4 | | | | | | | | | | | | | | | | | | |
| 22 | 310167A (SHH1091010) | | | | G | | | | | | | | | | | | | | H | 19 | 9 | 21 | 8 | 8 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 18 | 10 | 20 | 7 | 7 | | | | | | | L | 66700 | 48660 | 35 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 19 | 10 | 21 | 10 | 10 | | | | | | | | | | | | | | | | | | |
| 23 | 310183B (SHH1091020) | | | | G | | | | | | | | | | | | | | H | 17 | 8 | 23 | 20 | 5 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 16 | 9 | 23 | 19 | 4 | | | | | | | L | 65280 | 49070 | 33.5 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 18 | 7 | 22 | 20 | 7 | | | | | | | | | | | | | | | | | | |
| 24 | 110890A (SHH1091040) | | | | G | | | | | | | | | | | | | | H | 20 | 4 | 23 | 15 | 7 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 20 | 5 | 23 | 17 | 8 | | | | | | | L | 68130 | 50920 | 35 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | P | 19 | 4 | 24 | 17 | 6 | | | | | | | | | | | | | | | | | | |

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 SeAH 품질경영팀장)