



Mill Test Certificate/검사증명서

Certificate No./증명서번호 : 180820-FP01PS-0020A2-0002

Date of Issue/발행일자 : Oct., 10, 2018

Order No./계약번호 : 01S3289030

PO No./주문번호 : PO#V14891

Supplier /주문자 : HYUNDAI CORPORATION

Commodity /품명 : STEEL PLATE

Customer /고객사 :

Spec & Type /규격 : ASTM A36/ASME SA36/A709-36

| Size/치수 (mm) (inch) | Product No. /제품번호 | Quantity /수량 | Weight /중량 (kg) (lb) | Heat No. /제강번호 | Position | Tensile Test /인장시험 | | | Division | Chemical Composition/화학성분 | | | | | | | | | | | | |
|-----------------------------------|----------------------|-----------------|-------------------------------|-------------------|----------|-----------------------|-----------|-----------|----------|---------------------------|-----------|-----------|----------|----------|-----------|-----------|-----------|-----------|-----------|----------|--|--|
| | | | | | | YP (ksi) | TS (%) | EL (%) | | C (%) | Si (%) | Mn (%) | P (%) | S (%) | Cr (%) | Ni (%) | Cu (%) | Mo (%) | Nb (%) | V (%) | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PB17215301-5310 | 10 | 18,530 40,850 | SB33059 | T | 41.8 | 63.1 | 31 | L | 0.1619 | 0.232 | 0.577 | 0.0102 | 0.0041 | 0.024 | 0.009 | 0.009 | 0.003 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PB17277701-7707 | 7 | 12,971 28,595 | SB33059 | T | 40.9 | 62.2 | 36 | P | 0.1580 | 0.243 | 0.563 | 0.0099 | 0.0039 | 0.025 | 0.009 | 0.009 | 0.002 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51630301-0304 | 4 | 7,412 16,340 | SF02050 | T | 47.4 | 65.6 | 33 | L | 0.1619 | 0.232 | 0.577 | 0.0102 | 0.0041 | 0.024 | 0.009 | 0.009 | 0.003 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51629901-9904 | 4 | 7,412 16,340 | SF02050 | T | 45.5 | 65.1 | 31 | P | 0.1580 | 0.243 | 0.563 | 0.0099 | 0.0039 | 0.025 | 0.009 | 0.009 | 0.002 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51630001-0004 | 4 | 7,412 16,340 | SF02050 | T | 45.4 | 64.5 | 32 | L | 0.1705 | 0.247 | 0.563 | 0.0083 | 0.0046 | 0.026 | 0.012 | 0.020 | 0.005 | 0.001 | 0.000 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51651501-1504 | 4 | 7,412 16,340 | SF02050 | T | 42.8 | 64.4 | 30 | P | 0.1662 | 0.259 | 0.556 | 0.0091 | 0.0053 | 0.032 | 0.012 | 0.020 | 0.004 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51651601-1604 | 4 | 7,412 16,340 | SF02050 | T | 44.4 | 64.4 | 31 | L | 0.1705 | 0.247 | 0.563 | 0.0083 | 0.0046 | 0.026 | 0.012 | 0.020 | 0.005 | 0.001 | 0.000 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51666701-6704 | 4 | 7,412 16,340 | SF02050 | T | 45.1 | 65.3 | 32 | P | 0.1662 | 0.259 | 0.556 | 0.0091 | 0.0053 | 0.032 | 0.012 | 0.020 | 0.004 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51629701-9704 | 4 | 7,412 16,340 | SF02052 | T | 46.1 | 64.8 | 33 | L | 0.1705 | 0.247 | 0.563 | 0.0083 | 0.0046 | 0.026 | 0.012 | 0.020 | 0.005 | 0.001 | 0.000 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51629601-9604 | 4 | 7,412 16,340 | SF02052 | T | 44.7 | 64.3 | 31 | P | 0.1662 | 0.259 | 0.556 | 0.0091 | 0.0053 | 0.032 | 0.012 | 0.020 | 0.004 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51630801-0804 | 4 | 7,412 16,340 | SF02052 | T | 46.0 | 64.7 | 32 | L | 0.1644 | 0.258 | 0.561 | 0.0108 | 0.0070 | 0.039 | 0.010 | 0.018 | 0.003 | 0.001 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51630701-0704 | 4 | 7,412 16,340 | SF02052 | T | 46.7 | 64.8 | 29 | P | 0.1597 | 0.263 | 0.547 | 0.0103 | 0.0068 | 0.040 | 0.010 | 0.018 | 0.003 | 0.000 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51666801-6804 | 4 | 7,412 16,340 | SF02052 | T | 42.8 | 63.4 | 31 | L | 0.1644 | 0.258 | 0.561 | 0.0108 | 0.0070 | 0.039 | 0.010 | 0.018 | 0.003 | 0.001 | 0.001 | | |
| 15.88x2438x6096 5/8"x 96 x 240 | PA51652501-2503 | 3 | 5,559 12,255 | SF02096 | T | 46.0 | 65.1 | 31 | P | 0.1597 | 0.263 | 0.547 | 0.0103 | 0.0068 | 0.040 | 0.010 | 0.018 | 0.003 | 0.000 | 0.001 | | |
| | | | | | | | | | L | 0.1732 | 0.257 | 0.553 | 0.0103 | 0.0041 | 0.030 | 0.015 | 0.021 | 0.006 | 0.001 | 0.001 | | |
| | | | | | | | | | P | 0.1699 | 0.267 | 0.556 | 0.0105 | 0.0039 | 0.032 | 0.013 | 0.023 | 0.005 | 0.001 | 0.001 | | |

* Position - T : Top, M : Middle, B : Bottom
 * Tensile Test. Direction : Transversal, Gauge Length : 200mm(Rectangular), YP Method : 0.2% off-set
 * Division - L : Ladle Analysis, P : Products Analysis
 * Supply Condition : As-Rolled unless otherwise Heat Treated.

We hereby certify that the material herein has been made in accordance with the order and above specification. This material has been fully killed and made by basic oxygen process. This material is fine grained steel. Test Certificate is issued according to EN10204 3.1. Melted and Manufactured in Republic of Korea

Legal sanction can be imposed on forging. Improper use of product can cause safety issues.

Surveyor To :

S.S. Ahn