



# Mill Test Certificate

Certificate No. : 230422-FH01KS-0021A1-0004  
Date of Issue : May., 02, 2023

Order No. : 01S6033795

Supplier : POSCO INTERNATIONAL CORPORATION

PO No. : 2304-25.770  
(25.770)  
Commodity : HR COIL

Spec & Type : ASTM A1011-CS-B

| Size                    | Product No. | Quantity | Weight<br>(kg)<br>(lb)       | Heat No. | Country of Melt & Pour | Position | Tensile Test |           | Division | Chemical Composition |        |        |        |        |        |        |        |         |        |        |         |        |        |       |            |
|-------------------------|-------------|----------|------------------------------|----------|------------------------|----------|--------------|-----------|----------|----------------------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|---------|--------|--------|-------|------------|
|                         |             |          |                              |          |                        |          | YP<br>(Pa)   | TS<br>(%) |          | EL<br>(%)            | C (%)  | Si (%) | Mn (%) | P (%)  | S (%)  | Cr (%) | Ni (%) | B (ppm) | Cu (%) | Mo (%) | N (ppm) | Nb (%) | Ti (%) | V (%) | Sol-Al (%) |
| 2.98x1219xC             | HQQ092480   | 1        | 19,460<br>42,901             | SB64117  | KOR                    | B        | 217          | 341       | 41       | L                    | 0.0391 | 0.006  | 0.191  | 0.0127 | 0.0047 | 0.021  | 0.009  | 0       | 0.009  | 0.002  | 29      | 0.000  | 0.0006 | 0.000 | 0.026      |
| 2.98x1219xC             | HQQ092500   | 1        | 19,520<br>43,034             | SB64117  | KOR                    | B        | 217          | 341       | 41       | L                    | 0.0391 | 0.006  | 0.191  | 0.0127 | 0.0047 | 0.021  | 0.009  | 0       | 0.009  | 0.002  | 29      | 0.000  | 0.0006 | 0.000 | 0.026      |
| 2.98x1219xC             | HQQ156010   | 1        | 20,870<br>46,010             | SQ24071  | KOR                    | B        | 222          | 360       | 39       | L                    | 0.0369 | 0.014  | 0.195  | 0.0102 | 0.0021 | 0.014  | 0.007  | 0       | 0.010  | 0.002  | 42      | 0.000  | 0.0005 | 0.000 | 0.019      |
| 2.98x1219xC             | HQQ152580   | 1        | 19,890<br>43,849             | SQ24093  | KOR                    | B        | 212          | 349       | 41       | L                    | 0.0382 | 0.006  | 0.199  | 0.0089 | 0.0041 | 0.013  | 0.006  | 1       | 0.010  | 0.002  | 38      | 0.000  | 0.0005 | 0.000 | 0.028      |
| 2.98x1219xC             | HQQ152620   | 1        | 20,390<br>44,952             | SQ24093  | KOR                    | B        | 212          | 349       | 41       | L                    | 0.0382 | 0.006  | 0.199  | 0.0089 | 0.0041 | 0.013  | 0.006  | 1       | 0.010  | 0.002  | 38      | 0.000  | 0.0005 | 0.000 | 0.028      |
| 2.98x1219xC             | HQQ152640   | 1        | 20,350<br>44,863             | SQ24093  | KOR                    | B        | 212          | 349       | 41       | L                    | 0.0382 | 0.006  | 0.199  | 0.0089 | 0.0041 | 0.013  | 0.006  | 1       | 0.010  | 0.002  | 38      | 0.000  | 0.0005 | 0.000 | 0.028      |
| 2.98x1219xC             | HQQ152590   | 1        | 20,480<br>45,150             | SQ24093  | KOR                    | B        | 225          | 350       | 40       | L                    | 0.0382 | 0.006  | 0.199  | 0.0089 | 0.0041 | 0.013  | 0.006  | 1       | 0.010  | 0.002  | 38      | 0.000  | 0.0005 | 0.000 | 0.028      |
| 2.98x1219xC             | HQQ152600   | 1        | 20,400<br>44,974             | SQ24093  | KOR                    | B        | 225          | 350       | 40       | L                    | 0.0382 | 0.006  | 0.199  | 0.0089 | 0.0041 | 0.013  | 0.006  | 1       | 0.010  | 0.002  | 38      | 0.000  | 0.0005 | 0.000 | 0.028      |
| 2.98x1219xC             | HQQ152610   | 1        | 20,680<br>45,591             | SQ24093  | KOR                    | B        | 225          | 350       | 40       | L                    | 0.0382 | 0.006  | 0.199  | 0.0089 | 0.0041 | 0.013  | 0.006  | 1       | 0.010  | 0.002  | 38      | 0.000  | 0.0005 | 0.000 | 0.028      |
| 2.98x1219xC             | HQQ152630   | 1        | 20,700<br>45,635             | SQ24093  | KOR                    | B        | 225          | 350       | 40       | L                    | 0.0382 | 0.006  | 0.199  | 0.0089 | 0.0041 | 0.013  | 0.006  | 1       | 0.010  | 0.002  | 38      | 0.000  | 0.0005 | 0.000 | 0.028      |
| *** Sub Total (060) *** |             | 10       | 202,740 (kg)<br>446,959 (lb) |          |                        |          |              |           |          |                      |        |        |        |        |        |        |        |         |        |        |         |        |        |       |            |
| 2.98x1524xC             | HQR042630   | 1        | 20,250<br>44,643             | SQ23391  | KOR                    | B        | 206          | 341       | 41       | L                    | 0.0370 | 0.007  | 0.203  | 0.0064 | 0.0037 | 0.013  | 0.005  | 0       | 0.011  | 0.002  | 28      | 0.001  | 0.0004 | 0.000 | 0.037      |
| 2.98x1524xC             | HQQ116350   | 1        | 20,690<br>45,613             | SQ23391  | KOR                    | B        | 212          | 342       | 41       | L                    | 0.0370 | 0.007  | 0.203  | 0.0064 | 0.0037 | 0.013  | 0.005  | 0       | 0.011  | 0.002  | 28      | 0.001  | 0.0004 | 0.000 | 0.037      |

\* Position - T : Top, M : Middle, B : Bottom  
\* Tensile Test, Direction : Longitudinal, Gauge Length : 50 mm (Rectangular),  
YP Method : Upper Point  
\* Division - L : Ladle Analysis

P.O. # P0242539-08  
11 ga 48 x 96  
HEAT # SB64117

We hereby certify that the material herein has been made in accordance with the order and is fully in compliance.  
This material has been fully killed and made by basic oxygen process.  
Test Certificate is issued according to ISO 10474/EN 10204 3.1.

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



Surveyor To :

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Chief of material testing section

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