



Mill Test Certificate

Certificate No. : 190721-FC01KS-0178A5-0002

Date of Issue : Jul., 29, 2019

Order No. : 01S3777903

PO No. : D4B0092-3

Supplier : SUNGJIN CO., LTD.

Commodity : COLD ROLLED COIL

Customer : STEMCOR EUROPE

Spec & Type : EN10130 DC01

| Size | Product No. | Quantity | Weight (kg) | Heat No. | Position | Tensile Test | | | Division | Chemical Composition | | | | |
|-------------------------|-------------|----------|--------------|----------|----------|----------------|--------|--------|----------|----------------------|--------|--------|--------|--------|
| | | | | | | YP (MPa) | TS (%) | EL (%) | | C (%) | Si (%) | Mn (%) | P (%) | S (%) |
| 1.50x1000xC | CQT6524B | 1 | 11,940 | SQ04901 | B | 216 | 333 | 42 | L | 0.0392 | 0.002 | 0.199 | 0.0078 | 0.0038 |
| *** Sub Total (120) *** | | 4 | 47,340 (kg) | | | < Not Welded > | | | | | | | | |
| 1.50x1250xC | CPT7345A | 1 | 10,200 | SP42860 | B | 219 | 329 | 43 | L | 0.0363 | 0.004 | 0.195 | 0.0111 | 0.0043 |
| 1.50x1250xC | CPT7345B | 1 | 10,190 | SP42860 | B | 219 | 329 | 43 | L | 0.0363 | 0.004 | 0.195 | 0.0111 | 0.0043 |
| 1.50x1250xC | CPT7345C | 1 | 10,370 | SP42860 | B | 219 | 329 | 43 | L | 0.0363 | 0.004 | 0.195 | 0.0111 | 0.0043 |
| 1.50x1250xC | CPT7346A | 1 | 10,200 | SP42863 | B | 216 | 329 | 42 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7346B | 1 | 10,200 | SP42863 | B | 216 | 329 | 42 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7346C | 1 | 9,680 | SP42863 | B | 216 | 329 | 42 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7347A | 1 | 10,230 | SP42863 | B | 215 | 330 | 44 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7347B | 1 | 10,230 | SP42863 | B | 215 | 330 | 44 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7347C | 1 | 10,430 | SP42863 | B | 215 | 330 | 44 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7348A | 1 | 10,230 | SP42863 | B | 211 | 329 | 42 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7348C | 1 | 10,380 | SP42863 | B | 211 | 329 | 42 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7349A | 1 | 10,210 | SP42863 | B | 228 | 329 | 46 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7349B | 1 | 10,210 | SP42863 | B | 228 | 329 | 46 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| 1.50x1250xC | CPT7349C | 1 | 10,410 | SP42863 | B | 228 | 329 | 46 | L | 0.0349 | 0.001 | 0.188 | 0.0079 | 0.0048 |
| *** Sub Total (180) *** | | 14 | 143,170 (kg) | | | < Not Welded > | | | | | | | | |
| 1.50x1500xC | CPT7046A | 1 | 11,090 | SP42749 | B | 249 | 351 | 40 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| 1.50x1500xC | CPT7046B | 1 | 10,220 | SP42749 | B | 249 | 351 | 40 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| 1.50x1500xC | CPT7046C | 1 | 11,140 | SP42749 | B | 249 | 351 | 40 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| 1.50x1500xC | CPT7048A | 1 | 11,000 | SP42749 | B | 251 | 351 | 42 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| 1.50x1500xC | CPT7048B | 1 | 10,990 | SP42749 | B | 251 | 351 | 42 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| 1.50x1500xC | CPT7048C | 1 | 11,090 | SP42749 | B | 251 | 351 | 42 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| 1.50x1500xC | CPT7051A | 1 | 11,080 | SP42749 | B | 270 | 352 | 42 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| 1.50x1500xC | CPT7051B | 1 | 11,070 | SP42749 | B | 270 | 352 | 42 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |
| X 1.50x1500xC | CPT7051C | 1 | 11,130 | SP42749 | B | 270 | 352 | 42 | L | 0.0409 | 0.006 | 0.189 | 0.0094 | 0.0027 |

* Position - T : Top, M : Middle, B : Bottom

* Tensile Test. Direction : Transversal, Gauge Length : 80mm(Rectangular),

YP Method : Low Point

* Division - L : Ladle Analysis

Test Certificate is issued according to EN10204 3.1.

We hereby certify that the material herein has been made in accordance with the order and above specification.

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

Surveyor To :

Ko Jae Gon



Mill Test Certificate

Certificate No. : 190721-FC01KS-0176A5-0001

Date of Issue : Jul., 29, 2019

Order No. : 01S3777915

PO No. : D4B0092-3

Supplier : SUNGJIN CO., LTD.

Commodity : COLD ROLLED COIL

Customer : STEMCOR EUROPE

Spec & Type : EN10130 DC01

| Size | Product No. | Quantity | Weight (kg) | Heat No. | Position | Tensile Test | | | Division | Chemical Composition | | | | | |
|-------------------------|-------------|----------|--------------|----------|----------|--------------|----------------|--------|----------|----------------------|--------|--------|--------|--------|--------|
| | | | | | | YP (MPa) | TS (%) | EL (%) | | C (%) | Si (%) | Mn (%) | P (%) | S (%) | |
| 2.00x1000xC | CSU0628A | 1 | 11,700 | SP43206 | B | 206 | 321 | 44 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| 2.00x1000xC | CSU0628B | 1 | 12,460 | SP43206 | B | 206 | 321 | 44 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| 2.00x1000xC | CSU0629A | 1 | 12,170 | SP43206 | B | 213 | 319 | 44 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| 2.00x1000xC | CSU0629B | 1 | 12,450 | SP43206 | B | 213 | 319 | 44 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| 2.00x1000xC | CSU0630A | 1 | 12,180 | SP43206 | B | 207 | 322 | 45 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| 2.00x1000xC | CSU0630B | 1 | 12,440 | SP43206 | B | 207 | 322 | 45 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| 2.00x1000xC | CSU1506A | 1 | 11,980 | SP43206 | B | 203 | 324 | 43 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| 2.00x1000xC | CSU1506B | 1 | 12,190 | SP43206 | B | 203 | 324 | 43 | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 | |
| *** Sub Total (050) *** | | 8 | 97,570 (kg) | | | | < Not Welded > | | | L | 0.0354 | 0.001 | 0.190 | 0.0075 | 0.0036 |
| 2.00x1500xC | CST7482A | 1 | 10,930 | SP43290 | B | 209 | 326 | 45 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7482B | 1 | 10,890 | SP43290 | B | 209 | 326 | 45 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7482C | 1 | 11,200 | SP43290 | B | 209 | 326 | 45 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7483A | 1 | 10,900 | SP43290 | B | 210 | 329 | 42 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7483B | 1 | 10,940 | SP43290 | B | 210 | 329 | 42 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7483C | 1 | 11,140 | SP43290 | B | 210 | 329 | 42 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7487A | 1 | 10,940 | SP43290 | B | 207 | 326 | 46 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7487B | 1 | 10,920 | SP43290 | B | 207 | 326 | 46 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7487C | 1 | 11,200 | SP43290 | B | 207 | 326 | 46 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7489A | 1 | 10,920 | SP43290 | B | 206 | 327 | 44 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7489B | 1 | 10,200 | SP43290 | B | 206 | 327 | 44 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CST7489C | 1 | 11,200 | SP43290 | B | 206 | 327 | 44 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CSU1907A | 1 | 10,840 | SP43290 | B | 211 | 328 | 44 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CSU1907B | 1 | 10,830 | SP43290 | B | 211 | 328 | 44 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| 2.00x1500xC | CSU1907C | 1 | 11,060 | SP43290 | B | 211 | 328 | 44 | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 | |
| *** Sub Total (130) *** | | 15 | 164,110 (kg) | | | | < Not Welded > | | | L | 0.0343 | 0.001 | 0.187 | 0.0093 | 0.0044 |
| *** Grade Total *** | | 23 | 261,680 (kg) | | | | | | | | | | | | |
| *** Grand Total *** | | 23 | 261,680 (kg) | | | | | | | | | | | | |

* Position - T : Top, M : Middle, B : Bottom
 * Tensile Test. Direction : Transversal, Gauge Length : 80mm(Rectangular), YP Method : Low Point
 * Division - L : Ladle Analysis

We hereby certify that the material herein has been made in accordance with the order and above specification.

Test Certificate is issued according to EN10204 3.1.

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