## Mechanical properties of stainless steel flat products

| GRADES | EN [N°] | AISI/ASTM | Product Form (1) | Thickness max [mm] | Heat Treatment (5)(13) | HRB max | HB or HV max | $R_{p0.2}$ [MPa] min. (14)(15) (transverse) | $R_m$ [MPa] | $A_{80mm}$ [%] min (2) (th<3mm tr. and long.) | A [%] min (3) th≥3mm (tr. and long.) | KV [J] min th>10mm (longitudinal) | (transverse) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FERRITIC | 1.4595 [1] | | C | 8 | A | | | 220 * | from 380 to 560 | 25 | | | |
| | 1.4016 [1] | 430 | C | 8 | | 85 [30] | | 280 * | from 450 to 600 | 20 | | | |
| | | | H | 13,5 | A | | 160 [21] | 260 * | from 430 to 630 | 18 | | | |
| | | | P | 25 [18] | | | | 260 * | | 20 | | | |
| | 1.4520 [1] | | C | 8 | A | | | 200 * | from 380 to 530 | 24 | | | |
| | 1.4511 [1] | | C | 8 | A | | | 240 * | from 420 to 600 | 23 | | | |
| | 1.4017 [1] | | C | 8 | A | | | 350 * | from 500 to 750 | 12 | | | |
| | 1.4113 [1] | 434 | C | 8 | A | 83 [30] | | 280 * | from 450 to 630 | 18 | | | |
| | | | H | 13,5 | | | | | | | | | |
| | 1.4513 [1] | | C | 8 | A | | | 220 * | from 400 to 550 | 23 | | | |
| | 1.4510 [1] | 439 | C | 8 | A | 89 [42] | 183 [42] | 240 * | from 420 to 600 | 23 | | | |
| | | | H | 13,5 | | | | | | | | | |
| | 1.4521 [1] | 444 | C | 8 | A | 96 [42] | 217 [42] | 320 * | from 420 to 640 | 20 | | | |
| | | | H | 13,5 | | | | 300 * | from 400 to 600 | | | | |
| | | | P | 13,5 | | | | 300 * | from 420 to 620 | | | | |
| | 1.4526 [1] | 436 | C | 8 | A | | | 300 * | from 480 to 560 | 25 | | | |
| | 1.4509 [1] | | C | 8 | A | | | 250 * | from 430 to 630 | 18 | | | |
| | 1.4510 [1] | | C | 8 | A | | | 250 * | from 400 to 550 | 23 | | | |
| FERRITIC | 1.4749 [1] | 446 | (32) | 12 | A | | 212 [17] | 280 * | from 500 to 700 | 13 [28] | 15 [28] | | |
| | 1.4713 [1] | | (32) | 13,5 | A | | 192 [17] | 220 * | from 420 to 620 | 20 [28] | 15 [28] | | |
| | 1.4724 [1] | | (32) | 13,5 | A | | 192 [17] | 250 * | from 450 to 650 | 13 [28] | 15 [28] | | |
| | 1.4762 [1] | | (32) | 8 | A | | 223 [17] | 280 * | from 520 to 720 | 13 [28] | 15 [28] | | |
| | 1.4592 [1] | | C | 8 | A | | | 450 * | from 550 to 700 | 20 | | | |
| MARTENSITIC | 1.4006 [1] | 410 | C | 8 | A | 90 [8] | 200 [8] | 205 * [41] | max 600 | 20 | | upon agreement | |
| | | | H | 13,5 | | | | 400 * | from 550 to 750 | 15 | | | |
| | | | P [4] [7] | 75 | QT550 / QT650 | | | 450 * | from 650 to 850 | 12 | | | |
| | 1.4024 [1] | | C | 8 | A | 90 [8] | 200 [8] | | max 650 | 20 | | upon agreement | |
| | | | H | 13,5 | | | | | max 650 | 20 | | | |
| | | | P | 75 | QT550 | | | 400 * | from 550 to 750 | 15 | | | |
| | | | P | 75 | QT650 | | | 450 * | from 650 to 850 | 12 | | | |
| | 1.4021 [1] | 420 | C | 3 | QT | from 44 to 50 [24] | from 440 to 530 [25] | 345 * [10] | max 700 | | | upon agreement | |
| | | | C | 8 | A | 95 [8] | 225 [8] | | | 15 | | | |
| | | | H | 13,5 | | | | | | | | | |
| | | | P [4] [7] | 75 | QT650 / QT750 | | | 450 * / 550 * | from 650 to 850 / from 750 to 950 | 12 / 10 | | | |