

Materials comparison DIN / EN / ASTM

| Pipes / Tubes | | | | Flanges | | | Buttwelding Fittings | | |
|-------------------------------|---------------------|---------------------------|-------------------------------|---------------------|-------------------------------|-------------------------------|----------------------|---------------------------|--|
| Material number | EN | ASTM | Material number | EN | ASTM | Material number | EN | ASTM | |
| Non-alloy | | | Non-alloy | | | Non-alloy | | | |
| 1.0254 St 37.0 | P235TR1 | A 53 Grade A | 1.0038 RSt 37-2 | S235JR | - | 1.0254 St 37.0 | S235 | - | |
| 1.0570 St 52-3 | S355J2H (1.0576) | - | 1.0570 St 52-3 | S355J2 (1.0577) | - | - | - | - | |
| 1.0305 St 35.8/I | P235GH TC1 (1.0345) | A 106 Grade A | 1.0460 C 22.8 | P250GH | - | 1.0305 St 35.8/I | P235GH (1.0345) | A 234 Grade WPA | |
| 1.0305 St 35.8/III | P235GH TC2 (1.0345) | - | 1.0432 C 21 | - | A 105 | 1.0305 St 35.8/III | P235GH (1.0345) | - | |
| 1.0405 St 45.8/I | P265GH TC1 (1.0425) | A 106 Grade B | 1.0352 - | P245GH | - | 1.0405 St 45.8/I | P265GH (1.0425) | A 234 Grade WPB | |
| 1.0405 St 45.8/III | P265GH TC2 (1.0425) | - | - | - | - | 1.0405 St 45.8/III | P265GH (1.0425) | - | |
| Alloyed heat-resistant | | | Alloyed heat-resistant | | | Alloyed heat-resistant | | | |
| 1.5415 15 Mo 3 | 16Mo3 | A 335 Grade P1 | 1.5415 15 Mo 3 | 16Mo3 | A 182 Grade F1 | 1.5415 15 Mo 3 | 16Mo3 | A 234 Grade WP1 | |
| 1.7335 13 CrMo 4 4 | 13CrMo4-5 | A 335 Grade P12 | 1.7335 13 CrMo 4 4 | 13CrMo4-5 | A 182 Grade F12 | 1.7335 13 CrMo 4 4 | 13CrMo4-5 | A 234 Grade WP12 | |
| - | - | A 335 Grade P11 | - | - | A 182 Grade F11 | - | - | A 234 Grade WP11 | |
| 1.7380 10 CrMo 9 10 | 10CrMo9-10 | A 335 Grade P22 | 1.7380 10 CrMo 9 10 | 11CrMo9-10 (1.7383) | A 182 Grade F22 | 1.7380 10 CrMo 9 10 | 10CrMo9-10 | A 234 Grade WP22 | |
| 1.7362 12 CrMo 19 5 | X11CrMo5 | A 335 Grade P5 | 1.7362 12 CrMo 19 5 | - | A 182 Grade F5 | 1.7362 12 CrMo 19 5 | X11CrMo5 | A 234 Grade WP5 | |
| - | - | A 335 Grade P9 | - | - | A 182 Grade F9 | - | - | A 234 Grade WP9 | |
| 1.4903 - | X10CrMoVNb9-1 | A 335 Grade P91 | 1.4903 - | X10CrMoVNb9-1 | A 182 Grade F91 | 1.4903 - | X10CrMoVNb9-1 | A 234 Grade WP91 | |
| Low temperature | | | Low temperature | | | Low temperature | | | |
| 1.5637 10 Ni 14 | X12Ni14 | A 333 Grade 3 | 1.5637 10 Ni 14 | 12Ni14 | A 350 Grade LF3 | 1.5637 10 Ni 14 | 12Ni14 | A 420 Grade WPL3 | |
| 1.0356 TTSt 35 N | P215NL (1.0451) | A 333 Grade 1 | 1.0566 TTSt 355 | P355QH1 (1.0571) | A 350 Grade LF2 | 1.0356 TTSt 35 N | P215NL (1.0451) | - | |
| 1.0356 TTSt 35 V | P255QL (1.0452) | - | - | - | - | 1.0356 TTSt 35 V | - | - | |
| - | P265NL (1.0453) | A 333 Grade 6 | - | - | - | - | P265NL (1.0453) | A 420 Grade WPL6 | |
| Fine-grain steels | | | Fine-grain steels | | | Fine-grain steels | | | |
| 1.0486 StE 285 | - | API 5L Grade X42 | 1.0486 StE 285 | - | A 694 Grade F42 | 1.0486 StE 285 | - | A 860 Grade WPHY42 | |
| 1.0562 StE 355 | P355N | API 5L Grade X52 | 1.0562 StE 355 | P355N | A 694 Grade F52 | 1.0562 StE 355 | P355N | A 860 Grade WPHY52 | |
| 1.8902 StE 420 | P420N | API 5L Grade X60 | 1.8902 StE 420 | P420N | A 694 Grade F60 | 1.8902 StE 420 | - | A 860 Grade WPHY60 | |
| 1.8905 StE 460 | P460N | API 5L Grade X70 | 1.8905 StE 460 | P460N | A 694 Grade F70 | 1.8905 StE 460 | - | A 860 Grade WPHY70 | |
| High yield steels | | | High yield steels | | | High yield steels | | | |
| 1.0457 StE 240.7 | L245NB / L245NE | API 5L Grade B | - | - | - | 1.0457 StE 240.7 | - | - | |
| 1.0484 StE 290.7 | L290NB / L290NE | API 5L Grade X42 | - | - | - | 1.0484 StE 290.7 | L290NB / L290NE | A 860 Grade WPHY42 | |
| 1.0582 StE 360.7 | L360NB / L360NE | API 5L Grade X52 | - | - | - | 1.0582 StE 360.7 | L360NB / L360NE | A 860 Grade WPHY52 | |
| 1.8972 StE 415.7 | L415NB / L415NE | API 5L Grade X60 | - | - | - | 1.8972 StE 415.7 | L415NB / L415NE | A 860 Grade WPHY60 | |
| Stainless steel | | | Stainless steel | | | Stainless steel | | | |
| 1.4307 - | X2CrNi18-9 | A 312 Grade TP304L | 1.4307 - | X2CrNi18-9 | A 182 Grade F304L | 1.4307 - | X2CrNi18-9 | A 403 Grade WP304L | |
| 1.4306 X 2 CrNi 19 11 | X2CrNi19-11 | A 312 Grade TP304L | 1.4306 X 2 CrNi 19 11 | - | A 182 Grade F304L | 1.4306 X 2 CrNi 19 11 | X2CrNi19-11 | A 403 Grade WP304L | |
| 1.4301 X 5 CrNi 18 10 | X5CrNi18-10 | A 312 Grade TP304 | 1.4301 X 5 CrNi 18 10 | X5CrNi18-10 | A 182 Grade F304 | 1.4301 X 5 CrNi 18 10 | X5CrNi18-10 | A 403 Grade WP304 | |
| 1.4541 X 6 CrNiTi 18 10 | X6CrNiTi18-10 | A 312 Grade TP321 | 1.4541 X 6 CrNiTi 18 10 | X6CrNiTi18-10 | A 182 Grade F321 | 1.4541 X 6 CrNiTi 18 10 | X6CrNiTi18-10 | A 403 Grade WP321 | |
| 1.4550 X 6 CrNiNb 18 10 | X6CrNiNb18-10 | A 312 Grade TP347 | 1.4550 X 6 CrNiNb 18 10 | X6CrNiNb18-10 | A 182 Grade F347 | 1.4550 X 6 CrNiNb 18 10 | X6CrNiNb18-10 | A 403 Grade WP347 | |
| 1.4404 X 2 CrNiMo 17 13 2 | X2CrNiMo17-12-2 | A 312 Grade TP316L | 1.4404 X 2 CrNiMo 17 13 2 | X2CrNiMo17-12-2 | A 182 Grade F316L | 1.4404 X 2 CrNiMo 17 13 2 | X2CrNiMo17-12-2 | A 403 Grade WP316L | |
| 1.4401 X 5 CrNiMo 17 12 2 | X5CrNiMo17-12-2 | A 312 Grade TP316 | 1.4401 X 5 CrNiMo 17 12 2 | X5CrNiMo17-12-2 | A 182 Grade F316 | 1.4401 X 5 CrNiMo 17 12 2 | X5CrNiMo17-12-2 | A 403 Grade WP316 | |
| 1.4571 X 6 CrNiMoTi 17 12 2 | X6CrNiMoTi17-12-2 | A 312 Grade S 31635 | 1.4571 X 6 CrNiMoTi 17 12 2 | X6CrNiMoTi17-12-2 | A 182 Grade F316Ti | 1.4571 X 6 CrNiMoTi 17 12 2 | X6CrNiTi18-10 | - | |
| 1.4429 X 2 CrNiMoN 17 13 3 | X2CrNiMoN17-13-3 | A 312 Grade TP316LN | 1.4429 X 2 CrNiMoN 17 13 3 | X2CrNiMoN17-13-3 | A 182 Grade F316LN | 1.4429 X 2 CrNiMoN 17 13 3 | X2CrNiMoN17-13-3 | A 403 Grade WP316LN | |
| 1.4436 X 5 CrNiMo 17 13 3 | X3CrNiMo17-13-3 | A 312 Grade TP316 | 1.4436 X 5 CrNiMo 17 13 3 | X3CrNiMo17-13-3 | A 182 Grade F316 | 1.4436 X 5 CrNiMo 17 13 3 | X3CrNiMo17-13-3 | A 403 Grade WP316 | |
| 1.4435 X 2 CrNiMo 18 14 3 | X2CrNiMo18-14-3 | A 312 Grade TP316L | 1.4435 X 2 CrNiMo 18 14 3 | X2CrNiMo18-14-3 | A 182 Grade F316L | 1.4435 X 2 CrNiMo 18 14 3 | X2CrNiMo18-14-3 | A 403 Grade WP316LN | |
| 1.4439 X 2 CrNiMoN 17 13 5 | X2CrNiMoN17-13-5 | UNS S 31726 | 1.4439 X 2 CrNiMoN 17 13 5 | X2CrNiMoN17-13-5 | A 182 Grade F48 | 1.4439 X 2 CrNiMoN 17 13 5 | X2CrNiMoN17-13-5 | UNS S 31726 | |
| 1.4539 X 1 NiCrMoCuN 25 20 5 | X1NiCrMoCu25-20-5 | UNS N 08904 (904L) | 1.4539 X 1 NiCrMoCuN 25 20 5 | X1NiCrMoCu25-20-5 | A 182 Grade F904L | 1.4539 X 1 NiCrMoCuN 25 20 5 | X1NiCrMoCu25-20-5 | UNS N 08904 (904L) | |
| 1.4547 - | X1CrNiMoCuN20-18-7 | UNS S 31254 | 1.4547 - | X1CrNiMoCuN20-18-7 | UNS S 31254 | 1.4547 - | X1CrNiMoCuN20-18-7 | UNS S 31254 | |
| 1.4529 X 1 NiCrMoCuN 25 20 6 | X1NiCrMoCuN25-20-7 | UNS N 08926 | 1.4529 X 1 NiCrMoCuN 25 20 6 | X1NiCrMoCuN25-20-7 | UNS N 08926 | 1.4529 X 1 NiCrMoCuN 25 20 6 | X1NiCrMoCuN25-20-7 | UNS N 08926 | |
| 1.4462 X 2 CrNiMoN 22 5 3 | X2CrNiMoN22-5-3 | UNS S 31803 (Duplex) | 1.4462 X 2 CrNiMoN 22 5 3 | X2CrNiMoN22-5-3 | A 182 Grade F51 (Duplex) | 1.4462 X 2 CrNiMoN 22 5 3 | X2CrNiMoN22-5-3 | UNS S 31803 (Duplex) | |
| 1.4410 - | X2CrNiMoN25-7-4 | UNS S 32750 (Superduplex) | 1.4410 - | X2CrNiMoN25-7-4 | A 182 Grade F53 (Superduplex) | 1.4410 - | X2CrNiMoN25-7-4 | UNS S 32750 (Superduplex) | |

Version: 9-2019 / All information is subject to change.