# Chemical composition

| new grade | Japanese standard | USS | European standard | C | Si | Mn | P | S | Ni | Cr | Mo | N | others |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12Cr17Ni7 | SUS301 | 301 | 1.4319 | 0.15 | 1.00 | 2.00 | 0.045 | 0.030 | 6.00-8.00 | 16.00-18.00 | | 0.1 | |
| 06Cr19Ni10 | SUS304 | 304 | 1.4301 | 0.07 | 0.75 | 2.00 | 0.045 | 0.030 | 8.00-10.50 | 17.50-19.50 | | 0.1 | |
| | | | 1.4828 | 0.20 | 1.50-2.50 | 2.00 | 0.05 | 0.02 | 11.00-13.00 | 19.00-21.00 | | 0.11 | |
| 06Cr23Ni13 | SUS309S | 309S | 1.4833 | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 12.00-15.00 | 22.00-24.00 | | | |
| 06Cr25Ni20 | SUS310S | 310S | 1.4845 | 0.08 | 1.50 | 2.00 | 0.045 | 0.030 | 19.00-22.00 | 24.00-26.00 | | | |
| 06Cr17Ni12Mo2 | SUS316 | 316 | 1.4401 | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 10.00-14.00 | 16.00-18.00 | 2.00-3.00 | 0.1 | |
| 022Cr17Ni12Mo2 | SUS316L | 316L | 1.4404 | 0.03 | 0.75 | 2.00 | 0.045 | 0.030 | 10.00-14.00 | 16.00-18.00 | 2.00-3.00 | 0.1 | |
| 06Cr17Ni12Mo2Ti | SUS316Ti | 316Ti | 1.4571 | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 10.00-14.00 | 16.00-18.00 | 2.00-3.00 | | Ti≥5XC |
| 06Cr18Ni11Ti | SUS321 | 321 | 1.4541 | 0.08 | 0.75 | 2.00 | 0.045 | 0.030 | 9.00-12.00 | 17.00-19.00 | | 0.1 | Ti≥5XC |
| 022Cr11Ti | SUH409L | 409L | 1.4512 | 0.03 | 1.00 | 1.00 | 0.040 | 0.020 | 0.60 | 10.50-11.75 | | 0.03 | Ti:6(C+N) ~0.50 |
| 022Cr12 | SUS410L | | | 0.03 | 1.00 | 1.00 | 0.040 | 0.030 | 0.60 | 11.00-13.50 | | | |
| 10Cr17 | 430 | 1.4016 | | 0.12 | 1.00 | 1.00 | 0.040 | 0.030 | 0.75 | 16.00-18.00 | | | |
| 019Cr18CuNb | 430J1L | | | 0.025 | 1.00 | 1.00 | 0.040 | 0.030 | 0.60 | 16.00~20.00 | | 0.025 | Cu:0.30-0.80 Nb:8(C%+N%) ~0.80 |
| 06Cr13 | SUS410S | 410S | 1.4000 | 0.08 | 1.00 | 1.00 | 0.040 | 0.030 | 0.60 | 11.50-13.50 | | | |
| 022CR17NbTi | SUS430LX | 439 | 1.4510 | 0.12 | 0.75 | 1.00 | 0.040 | 0.030 | 0.60 | 16.00-18.00 | 2.00-3.00 | | |
| | | 441 | | 0.03 | 1.00 | 1.00 | 0.040 | 0.015 | | 17.50-18.50 | | | Ti:0.1-0.6; Nb:3(C+0.30) ~1.00 |
| 019Cr19Mo2NbTi | | 444 | 1.4521 | 0.025 | 1.00 | 1.00 | 0.040 | 0.030 | 1.00 | 17.50-19.50 | 1.75-2.50 | 0.035 | Ti+Nb; [0.20+4(C+N)] ~0.80 |
| 12Cr13 | SUS410 | 410 | 1.4006 | 0.15 | 1.00 | 1.00 | 0.040 | 0.030 | 0.60 | 11.50-13.50 | | | |
| | | 410SC | | 0.08-0.12 | 0.4-0.8 | 0.7-1.0 | 0.035 | 0.010 | 0.60 | 11.50-12.50 | | | |
| 41D001 | | | | 0.045-0.08 | 0.60 | 1.00-2.50 | 0.035 | 0.030 | 0.60 | 11.50-14.50 | | 0.008-0.020 | Nb＜0.010 |
| 20Cr13 | SUS420J1 | 420 | 1.4021 | 0.16-0.25 | 1.00 | 1.00 | 0.040 | 0.030 | 0.60 | 12.00-14.00 | | | |
| 30Cr13 | SUS420J2 | 420 | 1.4028 | 0.26-0.35 | 1.00 | 1.00 | 0.040 | 0.030 | 0.60 | 12.00-14.00 | | | |
| | | 420U6 | | 0.13-0.25 | 1.00 | 1.00 | 0.040 | 0.030 | 0.60 | 13.00-14.50 | | 0.06-0.15 | |
| 40Cr13 | | | 1.4031 | 0.36-0.45 | 0.80 | 0.80 | 0.040 | 0.030 | 0.60 | 12.00-14.00 | | | |
| X38CrMo14 | | | 1.4419 | 0.36-0.42 | 1.00 | 1.00 | 0.04 | 0.015 | | 13.00-14.50 | 0.06-1.0 | | |
| X46Cr13 | | | 1.4034 | 0.43-0.5 | 1.00 | 1.00 | 0.040 | 0.015 | | 12.50-14.50 | | | |
| | TMS422 | | | 0.36~0.40 | 0.30~0.50 | 0.45~0.65 | 0.025 | 0.010 | | 13.20-14.00 | | 0.90-1.10 | |
| 50Cr15MoV | | | 1.4116 | 0.45-0.55 | 1.00 | 1.00 | 0.040 | 0.015 | | 14.00-15.00 | 0.50-0.80 | | V:0.10-0.20 |
| 6Cr13 | | | | 0.60-0.70 | 1.00 | 1.00 | 0.040 | 0.030 | | 12.5-14.00 | | | |
| 7Cr13Mo | | | | 0.65-0.75 | 1.00 | 1.00 | 0.040 | 0.030 | | 12.50-14.00 | 0.05-1.0 | | V:0.05-0.2 |
| X65CrMo14 | | | 1.4109 | 0.60-0.75 | 1.00 | 1.00 | 0.045 | 0.030 | | 13.00-15.00 | 0.50-0.60 | | |
| 8Cr14MoV | | | | 0.75–0.8 | 0.8 | 0.2-0.8 | 0.03 | 0.04 | | 13.50-14.50 | 0.40-0.50 | | V:0.10-0.30 |
| 9Cr18MoV(102Cr17Mo) | | | | 0.95–1.10 | 0.8 | 0.8 | 0.04 | 0.03 | 0.60 | 16.00-18.00 | 0.40-0.70 | | |
| | VG10 | | | 0.95–1.05 | 0.5 | 0.5 | 0.03 | 0.03 | | 14.00-15.00 | 0.90-1.20 | | Co:1.30-1.50 V:0.15-0.50 |
| 022Cr25Ni7Mo4N | | 2507 | | 0.03 | 0.80 | 1.20 | 0.035 | 0.020 | 6.0~8.0 | 24.00-26.00 | 3.0-5.0 | 0.24-0.32 | Cu:≤0.5 |
| 022Cr23Ni5Mo3N | | 2205 | | 0.03 | 1.00 | 2.00 | 0.030 | 0.020 | 4.5~6.5 | 22.00-23.00 | 3.0-3.5 | 0.14-0.20 | |
| 1Cr13A14 | | | | 0.12 | 0.70 | 0.50 | 0.025 | 0.020 | 0.60 | 12.00-15.00 | | | Al:4.0-6.0 |
| 0Cr15A15 | | | | 0.08 | 0.70 | 0.50 | 0.025 | 0.020 | 0.60 | 14.00-15.50 | | | Al:4.5-5.5 |
| 0Cr21A16 | | | | 0.06 | 1.00 | 0.70 | 0.025 | 0.025 | 0.60 | 19.00-22.00 | | | Al:5.0-7.0 |