

# Materials specifications for butt - welding fittings ASTM materials

| Marking Symbol | JIS Code Number & Materials | Chemical Composition (Percent) |           |           |            |            |             |
|----------------|-----------------------------|--------------------------------|-----------|-----------|------------|------------|-------------|
|                |                             | C                              | S         | Mn        | P          | S          | Ni          |
| SGP            | G3452, SGP                  | -                              | -         | a234      | 0.050 Max. | 0.050 Max. | -           |
| PG371          | G3454, STPG370              | 0.25 Max.                      | 0.35 Max. | 0.30-0.90 | 0.040 Max. | 0.040 Max. | -           |
| PG410          | G3454, STPG410              | 0.30 Max.                      | 0.35 Max. | 0.30-1.00 | 0.040 Max. | 0.040 Max. | -           |
| PT370          | G3456, STPT370              | 0.25 Max.                      | 0.10-0.35 | 0.30-0.90 | 0.035 Max. | 0.035 Max. | -           |
| PT410          | G3456, STPT410              | 0.30 Max.                      | 0.10-0.35 | 0.30-1.00 | 0.035 Max. | 0.035 Max. | -           |
| PT480          | G3456, STPT480              | 0.33 Max.                      | 0.10-0.35 | 0.30-1.00 | 0.035 Max. | 0.035 Max. | -           |
| STS370         | G3455, STS370               | 0.25 Max.                      | 0.10-0.35 | 0.30-1.10 | 0.035 Max. | 0.035 Max. | -           |
| STS410         | G3455, STS410               | 0.30 Max.                      | 0.10-0.35 | 0.30-1.40 | 0.035 Max. | 0.035 Max. | -           |
| STS480         | G3455, STS480               | 0.33 Max.                      | 0.10-0.35 | 0.30-1.50 | 0.035 Max. | 0.035 Max. | -           |
| PY400          | G3457, STPY400              | -                              | -         | -         | 0.050 Max. | 0.050 Max. | -           |
| SUS304         | G3459, SUS304TP             | 0.08 Max.                      | 1.00 Max. | 2.00 Max. | 0.040 Max. | 0.030 Max. | 8.00-11.00  |
| SUS304H        | G3459, SUS304HTP            | 0.04-0.10                      | 0.75 Max. | 2.00 Max. | 0.040 Max. | 0.030 Max. | 8.00-11.00  |
| SUS304L        | G3459, SUS304LTP            | 0.03 Max.                      | 1.00 Max. | 2.00 Max. | 0.040 Max. | 0.030 Max. | 9.00-13.00  |
| SUS316         | G3459, SUS316TP             | 0.08 Max.                      | 1.00 Max. | 2.00 Max. | 0.040 Max. | 0.030 Max. | 10.00-14.00 |
| SUS316H        | G3459, SUS316HTP            | 0.04-0.10                      | 0.75 Max. | 2.00 Max. | 0.030 Max. | 0.030 Max. | 11.00-14.00 |
| SUS316L        | G3459, SUS316LTP            | 0.03 Max.                      | 1.00 Max. | 2.00 Max. | 0.040 Max. | 0.030 Max. | 12.00-16.00 |
| PL380          | G3460, STPL380              | 0.25 Max.                      | 0.35 Max. | 1.35 Max. | 0.035 Max. | 0.035 Max. | -           |
| PL450          | G3460, STPL450              | 0.18 Max.                      | 0.10-0.35 | 0.30-0.60 | 0.030 Max. | 0.030 Max. | 30.00-3.80  |
| SS400          | G3101, SS400                | -                              | -         | -         | 0.050 Max. | 0.050 Max. | -           |
| SM400B         | G3106, SM400B               | 0.20 Max.                      | 0.35 Max. | 0.60-1.20 | 0.040 Max. | 0.040 Max. | -           |
| SM490B         | G3106, SM490B               | 0.18 Max.                      | 0.55 Max. | 1.50 Max. | 0.040 Max. | 0.040 Max. | -           |
| SB410          | G3103, SB410                | 0.24 Max.                      | 0.15-0.30 | 0.90 Max. | 0.035 Max. | 0.040 Max. | -           |
| SB450          | G3103, SB450                | 0.28 Max.                      | 0.15-0.30 | 0.90 Max. | 0.035 Max. | 0.040 Max. | -           |
| S20C           | G4051, S20C                 | 0.18-0.23                      | 0.15-0.35 | 0.30-0.60 | 0.030 Max. | 0.035 Max. | -           |
| S25C           | G4051, S25C                 | 0.22-0.28                      | 0.15-0.35 | 0.30-0.60 | 0.030 Max. | 0.035 Max. | -           |
| S45C           | G4051, S45C                 | 0.42-0.48                      | 0.15-0.30 | 0.60-0.90 | 0.030 Max. | 0.035 Max. | -           |
| SF45           | G3201, SF45                 | 0.60 Max.                      | 0.15-0.50 | 0.30-1.20 | 0.030 Max. | 0.035 Max. | -           |
| SF50           | G3201, SF50                 | 0.60 Max.                      | 0.15-0.50 | 0.30-1.20 | 0.030 Max. | 0.035 Max. | -           |

