

| ALLOY UNS No.                | Werkstoff | Chemical Analysis % |          |           |           |          |           |            |             |           |           |          | Density      |            | Temper | Tensile Rm (min) |         | Yield Rp 0.2% (min) |          | Elong. % min | Hardness HV | Application |  |  |
|------------------------------|-----------|---------------------|----------|-----------|-----------|----------|-----------|------------|-------------|-----------|-----------|----------|--------------|------------|--------|------------------|---------|---------------------|----------|--------------|-------------|-------------|--|--|
|                              |           | C                   | Mn       | Ni        | Cr        | Fe       | Mo        | Ti         | Nb          | N         | Al        | Other    | g/cm³        | lb/in³     |        | ksi              | MPa     | ksi                 | MPa      |              |             |             |  |  |
|                              |           |                     |          |           |           |          |           |            |             |           |           |          |              |            |        |                  |         |                     |          |              |             |             |  |  |
| 304L S30403                  | 1.4306    | 0.035 max           | 2.0 max  | 8.0-11.0  | 18.0-20.0 | bal      |           |            |             |           |           |          |              | 7.93       | 0.286  | ANN              | 70      | 485                 | 25       | 170          | 35          | 200 max     | Lower carbon of 304 with good weldability.   |  |
| 316L S31603                  | 1.4404    | 0.035 max           | 2.0 max  | 10.0-13.0 | 16.0-18.0 | bal      | 2.0-2.5   |            |             |           |           |          |              | 7.93       | 0.286  | ANN              | 70      | 485                 | 25       | 170          | 35          | 200 max     | Better corrosion resistance than 304 in chloride Good weldability.   |  |
|                              | 2.5-3     |                     |          |           |           |          |           |            |             |           |           |          |              |            |        |                  |         |                     |          |              |             |             |  |  |
| 321 S32100                   | 1.4541    | 0.080 max           | 2.0 max  | 9.0-12.0  | 17.0-19.0 | bal      |           | 5XC -0.600 |             |           |           |          |              | 7.93       | 0.286  | ANN              | 75      | 515                 | 30       | 205          | 35          | 200 max     | Titanium stabilised grade with good weldability, improved resistance to weld decay attack & better mechanical properties at elevated temperatures. |  |
| 347 S34700                   | 1.4546    | 0.080 max           | 2.0 max  | 9.0-12.0  | 17.0-19.0 | bal      |           |            | 10XC -1.000 |           |           |          |              | 7.93       | 0.286  | ANN              | 75      | 515                 | 30       | 205          | 35          | 200 max     | As for 321 but uses niobium as stabilising element.  |  |
| 21\6\9 S21900                |           | 0.080 max           | 8.0-10.0 | 5.5-7.5   | 19.0-21.5 | bal      |           |            |             | 0.15-0.40 |           |          |              | 8          | 0.289  | CW               | 142-162 | 979-1117            | 120      | 827          | 16          | 250 min     | Good corrosion resistance, high mechanical properties.   |  |
| FV607 S64607                 |           | 0.12-0.16           | 0.5-1.2  | 0.4-0.9   | 10.0-11.7 | bal      | 0.7-1.2   |            |             |           |           | 0.35 max |              | V 0.15-0.3 | 7.7    | 0.278            | HT      | 130-152             | 900-1050 | 107          | 740         | 8           | 290-349  | Martensitic grade showing good creep resistance. |
| 17\4PH S17400                | 1.4542    | 0.070 max           | 2.0 max  | 3.0-5.0   | 15.0-17.5 | bal      |           |            | 0.15-0.45   |           |           |          | Cu 3.0-5.0   | 7.9        | 0.286  | HT               | 155     | 1070                | 145      | 1000         | 5           | 300 min     | Capable of developing high mechanical properties by solution treatment & age hardening.  |  |
| 15\5PH S15500                |           | 0.070 max           | 1.0 max  | 3.50-5.5  | 14.5-15.5 | bal      |           |            | 0.15-0.45   |           |           |          | Cu 2.5-4.5   | 7.8        | 0.282  | HT               | 155     | 1070                | 145      | 1000         | 12          | 331-401     | Capable of developing high mechanical properties by solution treatment and age hardening.  |  |
| Alloy 75 N06075              | 2.4951    | 0.08-0.15           | 1.0 max  | bal       | 18.0-21.0 | 5.0 max  |           | 0.20-0.60  |             |           |           |          | Cu 0.5 max   | 8.37       | 0.303  | ANN              | 100-120 | 690-830             | 46       | 300          | 30          | 230 max     | High temperature oxidation resistance.   |  |
| Alloy 263 N07263             |           | 0.04-0.08           | 0.6 Ma   | bal       | 19.0-21.0 | 0.7 max  | 5.6-6.1   | 1.9-2.4    |             | 0.3-0.6   |           |          | Co 19.0-21.0 | 8.36       | 0.302  | HT               | 140     | 970                 | 90       | 620          | 39          | 250 min     | High creep strength with good weldability.   |  |
| Alloy 600 N06600             | 2.4816    | 0.15 max            | 1.0 max  | 72.0 min  | 14.0-17.0 | 6.0-10.0 |           |            |             |           |           |          | Cu 0.50 max  | 8.42       | 0.304  | ANN              | 80      | 550                 | 35       | 240          | 30          | 200 max     | Very good combination of strength & oxidation resistance.  |  |
| Alloy 625 N06625             | 2.4856    | 0.10 max            | 0.5 max  | bal       | 20.0-23.0 | 5.0 max  | 8.0-10.0  | 0.40 max   | 3.15-4.15   |           | 0.40 max  |          |              | 8.44       | 0.305  | ANN              | 120     | 827                 | 60       | 414          | 30          | 260 max     | High temperature strength and corrosion resistance.  |  |
| Alloy 718 N07718             | 2.4668    | 0.08 max            | 0.4 max  | 50.0-55.0 | 17.0-21.0 | bal      | 2.80-3.30 | 0.65-1.15  | 4.75-5.50   |           | 0.20-0.80 |          | Co 1.0 max   | 8.19       | 0.296  | HT               | 185     | 1275                | 150      | 1034         | 12          | 331 min     | Age hardenable, high strength nickel alloy with good sour well corrosion resistance.   |  |
| Alloy X750 N07750            | 2.4669    | 0.08 max            | 1.0 max  | 70.0 min  | 14.0-17.0 | 5.0-9.0  |           | 2.25-2.75  | 0.70-1.20   |           | 0.40-1.00 |          |              | 8.25       | 0.298  | HT               | 160     | 1103                | 100      | 689          | 20          | 260-360     | High temperature strength performance.   |  |
| MP35N R30035                 |           | 0.03 max            | 0.2 max  | 33.0-37.0 | 19.0-21.0 | 1.0 max  | 9.0-10.5  | 1.0 max    |             |           |           |          | Co bal       | 8.43       | 0.304  | HT               | 220     | 1514                | 200      | 1380         | 10          | 528 max     | Nickel cobalt alloy with very high strength, toughness and outstanding corrosion resistance.   |  |
| CP Grade 2 R50400            | 3.7035    | 0.08 max            |          |           |           | 0.30 max |           | bal        |             | 0.03 max  |           | 0.03 max | O 0.25 max   | 4.51       | 0.163  | ANN              | 50      | 345                 | 40-65    | 275-450      | 20          |             | Very high strength to weight ratio combined with excellent seawater corrosion resistance.  |  |
| Ti 3Al/2.5V Grade 9 R56320   | 3.7194    | 0.08 max            |          |           |           | 0.25 max |           | bal        |             | 0.03 max  | 2.5-3.50  |          | V 2.0-2.5    | 4.48       | 0.162  | CWSR             | 125     | 860                 | 105      | 725          | 10          |             | High strength to weight ratio. Excellent corrosion resistance.   |  |
| Ti 6Al/4V Grade 5 ELI R56401 | 3.7165    |                     |          |           |           |          |           | bal        |             |           | 6.0       |          | V 4.0        | 4.33       | 0.156  | CWSR             | 159     | 1100                | 141      | 980          | 8           |             | ELI grade, very high strength to weight ratio.   |  |
| Ti 425 Ti 4Al/2.5V           |           |                     |          |           |           | 1.5      |           | bal        |             |           | 4.0       |          | V 2.5        |            |        | CWSR             | 146     | 1006                | 129      | 890          | 14          |             | Very high strength to weight ratio with improved ductility.  |  |