

## INCONEL 718 (UNS NO 7718)

INCONEL 718 (UNS N07718) is a high-strength, corrosion-resistant nickel chromium material used at - 423° to 1300°F The age-hardenable alloy can be readily fabricated, even into complex parts. Its welding characteristics, especially its resistance to postweld cracking, are outstanding

**INCONEL 718**  
**UNS N07718**  
**2.4668**

| Cr   | Mn   | Cu   | Si   | C    | P     | S     | Fe   | Ni   | Mo  | Ti   | Al  | Nb<br>+Ta | Co   | B     |
|------|------|------|------|------|-------|-------|------|------|-----|------|-----|-----------|------|-------|
| 17,0 | max  | Max. | max  | Max  | max   | max   |      | 50,0 | 2,8 | 0,65 | 0,2 | 4,75      | Max. | Max   |
| 21,0 | 0,35 | 0,3  | 0,35 | 0,08 | 0,015 | 0,015 | Bal. | 55,0 | 3,3 | 1,15 | 0,8 | 5,5       | 1,0  | 0,006 |

density (kg/dm<sup>3</sup>) 8,19  
thermal expansion (K<sup>-1</sup>)  
20 – 100 °C: 12,8 x 10<sup>-6</sup>  
20 – 200 °C: 13,5 x 10<sup>-6</sup>  
20 – 300 °C: 13,9 x 10<sup>-6</sup>  
20 – 400 °C: 14,2 x 10<sup>-6</sup>

|                               | Yield Strength<br>(Mpa) (20 C) | Tensile Strength (Mpa)<br>(20 C) | Elongation A5 (%) | Hardness    |
|-------------------------------|--------------------------------|----------------------------------|-------------------|-------------|
| Solution Annealed<br>and Aged | 827 - 965                      | 1034                             | 24                | 30 - 40 HRC |