

Brand name | NIMONIC® Alloy 90

Trade name | Alloy 90

| Material No. | EN Designation | UNS | Alloy |
|--------------|----------------|--------|-------|
| 2.4632 | NiCr20Co18Ti | N07090 | 90 |

Description | Alloy 90 / 2.4632 is a nickel-chromium-cobalt alloy.

Special properties | High stress-rupture strength and creep resistance at 920°C. Good resistance to high-temperature corrosion and oxidation.

| | | | | |
|-----------|-----------|-----------|----------|-----------|
| C % | Si ≤ % | Mn ≤ % | P ≤ % | S ≤ % |
| ≤ 0.13 | 1.00 | 1.00 | 0.02 | 0.015 |
| Cr % | Ni % | Ti ≤ % | Cu % | Al % |
| 18.0-21.0 | Rest | 2.00-3.00 | ≤ 0.20 | 1.00-2.00 |
| Zr % | Co % | B % | Fe % | |
| ≤ 0.15 | 15.0-21.0 | ≤ 0.020 | ≤ 1.50 | |

| | | | | |
|---|---|-------------------------|------------------------------|---|
| 0.2% Yield strength $R_{p0.2}$ ≥ N/mm ² | Tensile strength R_m N/mm ² | Elongation A_5 ≥ % | Resistant on air up to °C | Modulus of elasticity kN/mm ² |
| 685 | ≥ 1200 | 16,5 | 950 | 230 |

| | | | |
|------------------------------|----------------------------------|-------------------------------|--|
| Density g/cm ³ | Specific heat capacity J/kg K | Thermal conductivity W/m K | Electrical resistivity Ω mm ² /m |
| 8.2 | 460 | 13 | 1.15 |

Application | Aerospace industry, high temperatures springs, thermal processing

Available forms for 2.4632 / ALLOY 90

