

SPECIFICATIONS

European Standards:

- NiCrCo20Mo

WL: 2.4650

UNS : N07263

BS: HR 10 / 206 / 404

COMPOSITION

Carbon.....	0.05
Colbalt.....	20.00
Chromium.....	19.50
Molybdenum.....	5.80
Titanium.....	2.20
Iron.....	≤0.70
Nickel.....	Base

TYPICAL MECHANICAL PROPERTIES

On metal supplied ready for use:

- Tensile test at ambient temperature:
 - UTS: 970 N/mm²
 - 0.2 % Yield strength: 580 N/mm²
 - Elongation (5d): 39 %

- Rapid tensile test at temperature:

Temperature in °C	UTS in (N/mm ²)	0.2 % Yield strength in (N/mm ²)	Elongation (5d) in %
200	920	540	-
400	850	510	-
500	810	490	42
600	780	480	34
800	500	340	22
1000	120	80	31

APPLICATIONS

- Aerospace industry
- Gas turbine

CHARACTERISTICS

Precipitation hardened, nickel-based superalloy with:

- Excellent resistance to oxydation at temperature

HEAT TREATMENT

- Solution treatment and ageing:
1150°C / Water + 800°C / Air cool

PHYSICAL PROPERTIES

- Density:
 - at 20°C: 8.40
 - at 400°C: 8.30
 - at 800°C: 8.15
- Mean coefficient of expansion in m/m.°C:
 - between 20°C and 200°C: 12.0×10^{-6}
 - between 20°C and 400°C: 13.1×10^{-6}
 - between 20°C and 600°C: 14.3×10^{-6}
 - between 20°C and 800°C: 16.1×10^{-6}
- Modulus of elasticity in N/mm²:
 - at 20°C: 222×10^3
 - at 200°C: 213×10^3
 - at 400°C: 198×10^3
 - at 600°C: 184×10^3
 - at 800°C: 175×10^3
- Thermal conductivity in W.m/m².°C:
 - at 20°C: 11.5
 - at 200°C: 14.5
 - at 400°C: 18.0
 - at 600°C: 21.5
 - at 800°C: 25.0
 - at 1000°C: 28.5
- specific heat in J/g.°C:
 - at 20°C: 0.46

FORGING

- 1170/920°C

Contact:

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