



RENE[∞] 41



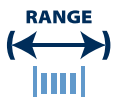
Key Features

- Very high strength at elevated temperatures
- Good oxidation resistance
- Age hardenable
- ^^High temperature dynamic applications

IMPORTANT

We will manufacture to your required mechanical properties.

key advantages to you, *our customer*



0.025 mm to 21 mm
(.001" to .827")



Order 3 m to 3 t
(10 ft to 6000 Lbs)



Delivery:
within 3 weeks



Wire to your spec



E.M.S available



Technical support

RENE[∞] 41 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths



[∞]Trade name of General Electric Inc.

Chemical Composition			Specifications	Key Features	Typical Applications	
Element	Min %	Max %	AMS 5545 AMS 5713 AMS 5800 AMS 5712 GE C50T71	Very high strength at elevated temperatures Good oxidation resistance Age hardenable ^^High temperature dynamic applications	Afterburner parts Turbine castings Bolts Other fasteners	
C	-	0.12				
Mn	-	0.10				
Si	-	0.50				
S	-	0.015				
Designations						
Cr	18.00	20.00				W.Nr. 2.4973 UNS N07041 AWS 120
Co	10.00	12.00				
Mo	9.00	10.50				
Ti	3.00	3.30				
Al	1.40	1.60				
B	0.003	0.01				
Fe	-	5.00				
Ni	BAL					

Density	8.25 g/cm ³	0.298 lb/in ³
Melting Point	1345 °C	2450 °F
Coefficient of Expansion	13.6 µm/m °C (20 – 100 °C)	7.41 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	83.2 kN/mm ²	12067 ksi
Modulus of Elasticity	218.0 kN/mm ²	31619 ksi

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	Type	Temperature		Time (Hr)	Cooling
		°C	°F		
Annealed	Age Harden	760	1400	16	Air
Spring Temper	Solution Anneal	1065	1950	4	Air
	Age Harden	760	1400	16	Air
Spring Temper	Age Harden	760	1400	16	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature depending on load^^ and environment	
	N/mm ²	ksi	°C	°F
Annealed	800 – 1100	116 – 159	-	-
Annealed + Aged	1350 – 1550	196 – 225	up to +550	up to +1020
Spring Temper	1400 – 1800	203 – 261	-	-
Spring Temper + Annealed + Aged	1350 – 1550	196 – 225	up to +550	up to +1020
Spring Temper + Aged	1600 – 2000	232 – 290	up to +550	up to +1020

The above tensile strength ranges are typical. If you require different please ask.

^^Dynamic applications = active/lively/changing