



## RENE<sup>∞</sup> 41



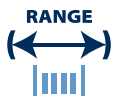
### Key Features

- 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<sup>∞</sup> 41 available in:-

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

### Packaging

- Coils
- Spools
- Bars or lengths



<sup>∞</sup>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  <b>Designations</b>  W.Nr. 2.4973 UNS N07041 AWS 120	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			
Cr	18.00	20.00			
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				

<b>Density</b>	8.25 g/cm <sup>3</sup>	0.298 lb/in <sup>3</sup>
<b>Melting Point</b>	1345 °C	2450 °F
<b>Coefficient of Expansion</b>	13.6 µm/m °C (20 – 100 °C)	7.41 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	83.2 kN/mm <sup>2</sup>	12067 ksi
<b>Modulus of Elasticity</b>	218.0 kN/mm <sup>2</sup>	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 <sup>2</sup>	ksi	°C	°F
Annealed	<1100	<1159	-	-
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