

Products & Sizes

Precision Reroll Strip

0.005"

Rene 41® Chemical Composition

	Element	Percent by Weight Min	Percent by Weight Max
C	Carbon	-	0.12
Mn	Manganese	-	0.10
Si	Silicon	-	0.50
S	Sulfur	-	0.15
Cr	Chromium	18.00	20.00
Co	Cobalt	10.00	12.00
Mo	Molybdenum	9.00	10.50
Ti	Titanium	3.00	3.30
Al	Aluminum	1.40	1.60
B	Boron	0.003	0.010
Fe	Iron	-	5.00
Cu	Copper	-	0.50
Ni	Nickel	-	Balance

Industry Standards

Industry Applications

- Turbine blades
- Wheels
- Combustion chamber liners
- After burners
- Structural hardware

Related Industries

Aerospace

Defense

Space

Physical Properties

Property	At 70°F	At 20°C
Density	0.298 lb/in ³	8.25 g/cm ³
Modulus of Elasticity (E)	31.6 x 10 ³ ksi	218 GPa
Modulus of Rigidity (G)	12.1 x 10 ³ ksi	83.4GPa
Coefficient of Expansion	7.5 microinches/in.-°F (70-1000°F)	102.0 microhm-cm°C (20-538°C)
Electrical Resistivity	51.5 microhm-in	131 microhm-cm
Thermal Conductivity	62 Btu•in/ft ² •h•°F	9.0 W/wm•°C

Mechanical Properties

Condition	Heat Treatment	Tensile Strength, ksi	Suggested Operating Conditions
Annealed	1975°F (1079°C)	170	-300°F - 1500°F (-184°C - 815°C)
Spring Temper			-300°F - 1500°F (-184°C - 815°C)
After Precipitation Heat Treat	Per AMS 5545	160	-300°F - 1500°F (-184°C - 815°C)