

# Inconel® 718 Spooled Wire

**Formula:** Ni53/Fe19/Cr19/Nb/Mo/Ti

**Product Shape:** Spooled

**Diameter:** 0.5mm

**Length:** 10m

**Temper:** Annealed

**UOM Code:** 111-189-12

**SKU:** 1000023902-group

**Product Code:** NI13-WR-000140

## Material Properties for Alloys

### Mechanical Properties

Element	Value
Hardness - Brinell	250-410
Elongation at break( % )	15
Modulus of elasticity( GPa )	200
Tensile strength( MPa )	800-1360

### Magnetic Properties

Element	Value
Initial permeability	1.0013
Curie temperature( C )	-196

### Electrical Properties

Element	Value
Electrical resistivity( $\mu\text{Ohmcm}$ )	125

### Thermal Properties

Element	Value
Maximum use temperature in air( C )	700
Melting point( C )	1260-1335
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	435@23°C

<b>Element</b>	<b>Value</b>
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	11.2@23°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	13@20-100°C

## **Physical Properties**

<b>Element</b>	<b>Value</b>
Density( gcm <sup>-3</sup> )	8.19