

# Polyimide Nickel/Chromium Alloy Insulated Wire (Ni80/Cr20)

**Formula:** Ni80/Cr20  
**Conductor Diameter:** 0.25mm  
**Insulation:** Polyimide  
**Insulation Thickness:** 0.025mm  
**Length:** 10m  
**UOM Code:** 168-447-88  
**SKU:** 1000061601-group  
**Product Code:** NI05-SW-000190

## Material Properties for Alloys

### Mechanical Properties

Element	Value
Elongation at break( % )	40
Tensile strength( MPa )	650-1100

### Electrical Properties

Element	Value
Electrical resistivity( $\mu\text{Ohmcm}$ )	108
Temperature coefficient( $\text{K}^{-1}$ )	0.00005

### Thermal Properties

Element	Value
Maximum use temperature in air( C )	1150-1250
Melting point( C )	1400
Thermal conductivity( $\text{W m}^{-1} \text{K}^{-1}$ )	13.4@23°C
Coefficient of thermal expansion( $\times 10^{-6} \text{K}^{-1}$ )	14@20-100°C

### Physical Properties

Element	Value
Density( $\text{gcm}^{-3}$ )	8.4