

# PTFE-Insulated AISI 316 Stainless Steel Wire

PTFE-insulated AISI 316 stainless steel wire provides marine-grade corrosion resistance, mechanical strength, and PTFE dielectric and chemical protection for offshore instrumentation, chemical plant wiring, aerospace harnesses, and research into long-term insulation stability in corrosive atmospheres. **SKU:** 1000041159-group  
**Product Code:** FE24-SW-000110

## Material Properties for Alloys

### Mechanical Properties

Element	Value
Hardness - Brinell	160-190
Elongation at break( % )	60
Modulus of elasticity( GPa )	190-210
Izod impact strength( J m <sup>21</sup> )	20-136
Tensile strength( MPa )	460-860

### Electrical Properties

Element	Value
Electrical resistivity( $\mu\text{Ohmcm}$ )	70-78
Temperature coefficient( K <sup>21</sup> )	-

### Thermal Properties

Element	Value
Melting point( C )	1370-1400
Specific heat( J K <sup>21</sup> kg <sup>21</sup> )	502@23°C
Thermal conductivity( W m <sup>21</sup> K <sup>21</sup> )	16.3@23°C
Coefficient of thermal expansion( $\times 10^{22}$ K <sup>21</sup> )	16-18@20-100°C

### Physical Properties

Element	Value
Density( gcm <sup>3</sup> )	7.96