PTFE (Polytetrafluoroethylene) Nickel Insulated Wire

Formula: Ni
Conductor Diameter: 0.1mm
Insulation: PTFE (Polytetrafluoroethylene)
Insulation Thickness: 0.025mm
Length: 10m
Temper: Annealed
CAS Number: 7440-02-0
UOM Code: 167-839-04
SKU: 1000061220-group
Product Code: NI00-SW-000115

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	28
Crystal structure	Face centred cubic
Electronic structure	Ar 3d? $4s^2$
Valences shown	0, 1, 2, 3
Atomic weight(amu)	58.69
Thermal neutron absorption cross-section(Barns)	4.54
Photo-electric work function(eV)	4.9
Natural isotope distribution(Mass No./%)	60/ 26.10
Natural isotope distribution(Mass No./%)	62/ 3.59
Natural isotope distribution(Mass No./%)	61/ 1.13
Natural isotope distribution(Mass No./%)	58/ 68.27
Natural isotope distribution(Mass No./%)	64/ 0.91
Atomic radius - Goldschmidt(nm)	0.125
Ionisation potential(No./eV)	2/ 18.2
Ionisation potential(No./eV)	4/ 54.9
Ionisation potential(No./eV)	6/ 108
Ionisation potential(No./eV)	1/ 7.63
Ionisation potential(No./eV)	3/ 35.2

Element	Value
Ionisation potential(No./eV)	5/ 75.5

Mechanical Properties

Element	Value
Hardness - Brinell	190
Hardness - Brinell	100
Material condition	Hard
Material condition	Soft
Poisson's ratio	0.312
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Bulk modulus(GPa)	177.3
Bulk modulus(GPa)	177.3
Tensile modulus(GPa)	199.5
Tensile modulus(GPa)	199.5
Izod toughness(J m?¹)	160
Izod toughness(J m?¹)	160
Tensile strength(MPa)	400
Tensile strength(MPa)	660
Yield strength(MPa)	150
Yield strength(MPa)	480

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	6.9@20@20°C
Temperature coefficient(K?¹)	0.0068@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	-1.48

Physical Properties

Element	Value
Boiling point(C)	2732
Density(gcm?³)	8.9@20
Density(gcm?³)	8.9@20C

Thermal Properties

Element	Value
Melting point(C)	1453
Latent heat of evaporation(J g?¹)	6378
Latent heat of fusion(J g?¹)	292

Element	Value
Specific heat(J K?¹ kg?¹)	444@25°C
Thermal conductivity(W m?¹ K?¹)	90.9@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	13.3@0-100°C