

# PVC (Unplasticized) Tube

**Formula:** UPVC

**Outside Diameter:** 48mm

**Wall Thickness:** 3mm

**Inside Diameter:** 42mm

**Length:** 10mm

**Structure:** Biaxially Oriented tube

**Colour:** Grey

**CAS Number:** 9002-86-2

**UOM Code:** 121-682-74

**SKU:** 1000032258-group

**Product Code:** CV31-TB-000180

## Material Properties for Polymers

### Chemical Resistance

Element	Value
Acids - concentrated	Good-Poor
Acids - dilute	Good
Alcohols	Good
Alkalis	Good
Aromatic hydrocarbons	Poor
Greases and Oils	Good
Halogenated Hydrocarbons	Fair-Poor
Halogens	Fair
Ketones	Poor

### Electrical Properties

Element	Value
Dielectric constant @ 1MHz	2.7-3.1
Dissipation factor @ 1kHz	0.025
Dielectric strength( kV mm <sup>2</sup> )	14
Volume resistivity( Ohmcm )	10 <sup>12</sup>

### Physical Properties

<b>Element</b>	<b>Value</b>
Flammability	V0
Radiation resistance	Fair
Refractive index	1.54
Resistance to Ultra-violet	Good
Limiting oxygen index( % )	42
Water absorption - over 24 hours( % )	0.03-0.4
Density( gcm <sup>3</sup> )	1.4

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Hardness - Rockwell	R106-120
Elongation at break( % )	60
Tensile modulus( GPa )	2.5-4
Izod impact strength( J m <sup>21</sup> )	20-1000
Tensile strength( MPa )	25-70

## **Thermal Properties**

<b>Element</b>	<b>Value</b>
Heat-deflection temperature - 0.45MPa( C )	70
Heat-deflection temperature - 1.8MPa( C )	67
Lower working temperature( C )	-30
Upper working temperature( C )	50-75
Specific heat( J K <sup>1</sup> kg <sup>1</sup> )	1000-1500
Thermal conductivity( W m <sup>1</sup> K <sup>1</sup> )	0.12-0.25@23°C
Coefficient of thermal expansion( x10 <sup>??</sup> K <sup>1</sup> )	75-100