

# PVC

## SPECIFICATIONS SHEET

### DETAILS

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**Chemical Name:** Polyvinyl Chloride

**Common/Trade Names:** PVC, Takiron, Hishi, Polor, Sunloid

**Abbreviation:** PVC

**Properties (Colour):** Grey. White. Clear

**Properties (Form):** Rod, Sheet, Tube, Custom

**Machining:** Machines well and care has to be taken to limit the machining tool temperature and exposure to chloride gases.

**Types:** Rigid. Flexible.

### KEY BENEFITS

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- Can be heat formed or bent and welded
- Excellent electrical insulating properties
- Self-extinguishing
- Very high chemical resistance
- Thermoformable
- Moderate impact resistance and service temperature
- Good dimensional stability
- Very good moisture resistance
- Bondable

### MECHANICAL PROPERTIES

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Density $\rho$ (g/cm <sup>3</sup> )	1.42
Tensile Strength at Yield $s$ (Mpa)	50
Elongation at Break %	25
Modulus of Elasticity Tensile $E_t$ (Mpa)	3000
Modulus of Elasticity Bending $E_b$ (Mpa)	-
Impact Strength kJ/mm <sup>2</sup>	4
Hardness Ball Indent	120
Creep 1 % after 1000hr MPa	-
Coefficient of friction against Steel $\mu$	-

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(CONT.)

## THERMAL PROPERTIES

Melting Point °C	170
Glass Transition Temperature °C	-
Thermal Conductivity W/M°C	0.16
Specific Heat J/(g.K)	0.83
Coefficient of Linear Expansion $\alpha$ 10 <sup>-6</sup> .°K	70-80
Safe Working Temp. Short Term °C	75
Safe Working Temp. Continuous °C	60
Minimum Working Temperature °C	-15

## ELECTRICAL PROPERTIES

Dielectric Constant $\hat{\epsilon}$ 106 Hz	3.2
Dielectric loss Factor tand 106 Hz	0.03
Volume Resistance W.cm	10 <sup>15</sup>
Surface Resistance W	10 <sup>13</sup>
Dielectric Strength kV/mm	39
Moisture Absorption % (at 50%RH)	-

\*Whilst all care has been taken to provide accurate & up to date information, we cannot provide legal certification of properties. We recommend that this information be used as a design guide only. Actual testing should be undertaken to confirm data if certification is required.\*