

## Material Data Sheet

### PVDF - Polyvinylidene Fluoride

#### General

- Excellent mechanical strength
- Resistance to UV and  $\gamma$  radiation
- High purity
- Excellent chemical resistance
- High abrasion resistance
- Excellent fire resistance
- Low permeability to most gased and liquid
- High temperature capabilities

#### Physical properties

Density(Specific Gravity)	ASTM D-792	g/cm <sup>3</sup> (gm / cc)	1.75 - 1.80
Water Absorption(Max.) 24 hours	ASTM D-570	%	<0.04
Flammability		-	V-0

#### Mechanical properties

Tensile Strength	ASTM D-638	MPa	50
Elongation of Break	ASTM D-638	%	10 - 50
Tensile modulus	ASTM D-638	GPa	$\geq 1.8$
Hardness Shore	ASTM D-2240	Shore D	$\geq 75$

#### Thermal properties

Peak Melting Temperature	ASTM D-3418	°C	170 - 175
Specific heat capacity, at 23°C	DSC	kJ kg <sup>-1</sup> °C <sup>-1</sup>	1.2
Thermal conductivity, at 23°C	ASTM E-1530	W/mK	0.2
Continuous use temperature	-	°C	150
Oxygen Index,Loi	ASTM D-2863	%	44

#### Electrical properties

Dielectric strength, 0.25mm thick	ASTM D-149	Kv/mm	20 - 25
Surface Resistivity	ASTM D-258	ohm	$>10^{14}$
Volume Resistivity	ASTM D-257	ohm cm	$>10^{14}$

- NOTE:
- \*The data stated above are typical values intended for reference and comparison purposes only.
  - \*The data should not be used as a basis for design specifications or quality control.
  - \*The information is provided as a guide to the best of our knowledge and given without obligation or liability.
  - \*Testing under individual application circumstances is recommended.