

Starke™ PVDF Sheet Technical Data Sheet

Material description:

PVDF probably is the most chemically resistant thermoplastic known in the world today, standing up to -30°C ~+150°C, which has a fairly good dimensional stability and good tribological characteristics. PVDF is a flame-retardant, self-extinguishing plastic with high density and excellent strength. It is inherent in the minimum impact strength at low temperatures.

Material Performance:

- low thermal conductivity
- high chemical corrosion resistance
- heat resistance
- mechanical strength and toughness
- resistant to most chemicals and solvents
- low permeability to most gases and liquids
- withstands exposure to harsh thermal and chemical conditions
- unaffected by long-term exposure to ultraviolet radiation

Physical properties	Test Method	Value	Unit
Density	ISO 1183-1:2019 Method A	1.78	g/cm3
Mechanical Properties	Test Method	Value	Unit
Tensile stress	ISO 527-1:2019&ISO 527-2:2012	52.8	MPa
Elongation at break	ISO 527-1:2019&ISO 527-2:2012	9.4	%
Bending strength	ISO 178	94	MPa
Shore Hardness	ISO 868	76	/
Thermal Properties	Test Method	Value	Unit
Melting point	ISO 11357	165-175	°C
Operating temperature long term		150	°C
Heat deflection temperature	ISO 75-1:2020&ISO 75-2:2013 Method A	112-145	°C
Electric Properties	Test Method	Value	Unit
Volume resistivity	IEC 60093	2*10 ¹⁵	Ω * cm
Dielectric strength	IEC 60243-1	6.43	kV/mm

These technical data have been determined as average values by our suppliers from many individual measurements. In all measurements, the test specimens were tested in the dry state. We pass on the data with reservation. The table does not claim to be complete or correct. Material technology is subject to constant further development. No rights or guarantees can be derived from it. Own tests are necessary because the environmental and operating conditions (humidity, temperature, mechanical forces, radiation and chemicals, etc.) set limits in the application.

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