



**Engineering
Plastics**

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Typical Properties Data Sheet

The Supplier of Engineering Plastics
Rods, Sheets, Tubes, Profiles and Machining Parts

Saferlon® PVDF Properties Data Sheet

① Raw material description

Standard Grade:	Preprocessing mould grade	Appearance color:	Natural color
Applications:	Preprocessing materials, sheet, rod, tube, chemical resistance components, pump, pipeline, pipeline fitting, storage tank, heat exchanger, electric wire etc.		
Remarks:	Properties: excellent chemical stability, good corrosion resistance, good toughness, wear resistance, excellent creep resistance, high rigidity and high strength, anti-aging properties, anti-ultraviolet, anti-nuclear radiation, excellent heat resistance and dielectrical strength.		

② Raw material technical datasheet

Property item	Test conditions	Testing method	Testing data	Unit
I. Physical property				
Density	---	ASTM D792	1.77	g/cm ³
Shrinkage	---	ASTM D955	3.0~6.0	%
Absorption	24h	ASTM D570	<0.04	%
Flammability class	---	UL94	V0	Class
II. Mechanical property				
Tensile strength	23°C	ASTM D638	31~43	MPa
Tensile modulus of elasticity	---	ASTM D638	1103	MPa
Tensile yield strength	---	ASTM D638	50	MPa
Tensile strain at yield	---	ASTM D638	9	%
ultimate tensile strength	---	ASTM D638	46	MPa
Ultimate tensile strain	---	ASTM D638	80	%
Elongation at break	---	ASTM D638	300~450	%
Flexural strength	---	ASTM D790	59~66	MPa
Compression strength	23°C	ASTM D695	80	MPa
Flexural modulus	23°C	ASTM D790	621~1158	MPa
Elasticity modulus	---	ASTM D790	2000	MPa
Hardness-Rockwell	---	ASTM D785	110	R (scale)
Hardness-shore D	---	ASTM D2240	75~85	D
Impact strength	---	ASTM D256	252	kJ/m ²
Impact strength(chipped)	---	ASTM D256	22	kJ/m ²
Taber abrasion resistance	1000 cycles, 1000g, cs-17runner	---	5~9	mg
Friction coefficient	rub with steel	ASTM D1894	0.34	---
III. Thermal property				
Thermal deformation temperature	0.45MPa	ASTM D648	130	°C
	1.8MPa	ASTM D648	110	°C
Melting temperature	---	---	168	°C
Specific heat	---	DSC	1170-1510	J/kg/°C

Vicat softening temperature	---	ASTM D1225	140	°C
Max. working temperature(long time)	20000h	UL746B	129	°C
Melting point	---	ASTM D2133	171	°C
Brittle temperature	---	ASTM D746	-62°(Below)	°C
Thermal conductivity	---	ASTM C177	0.17-0.19	W/(m*K)
Coefficient linear thermal expansion	---	ASTM D696	4.2	10 ⁻⁵ /°C ⁻¹

IV. Electrical property

Dielectric constant	---	ASTM D150	6.43	10 ⁶ Hz
Dielectric dissipation factor	---	ASTM D150	0.18	MHz
Leakage current strength	---	DIN53 40	KC300	---
Dielectric strength	0.254mm thin film	ASTM D149	>1080	kV/mm
Volume resistivity	---	ASTM D257	>10 ¹⁴	(Ω) * cm
Suface resistivity	---	ASTM D257	>10 ¹⁴	(Ω)

NOTE: 1 g/cm³ = 1,000 kg/m³, 1 Mpa = 1 N/mm², 1kV/mm = 1 MV/m

Statement:
NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Quanda will not provide any legally binding guarantee of certain properties, or any suitability.