

Solef® 6020

polyvinylidene fluoride

Solef® 6020 PVDF homopolymer has very high viscosity for membranes and lithium batteries. It is available exclusively as powder.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Homopolymer • Ultra High Viscosity		
Uses	• Batteries • Membranes		
Forms	• Powder		

Physical	Typical Value	Unit	Test method
Specific Gravity	1.75 to 1.80		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/21.6 kg)	< 2.0	g/10 min	ASTM D1238
Water Absorption (23°C, 24 hr)	< 0.040	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus ¹ (23°C, 2.00 mm)	1600 to 1700	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield, 23°C, 2.00 mm	53.0 to 57.0	MPa	
Break, 23°C, 2.00 mm	25.0 to 50.0	MPa	
Tensile Elongation ²			ASTM D638
Yield, 23°C, 2.00 mm	5.0 to 10	%	
Break, 23°C, 2.00 mm	15 to 50	%	

Thermal	Typical Value	Unit	Test method
Glass Transition Temperature	-40.0	°C	ASTM D4065
Melting Temperature	171 to 175	°C	ASTM D3418
Peak Crystallization Temperature (DSC)	133 to 138	°C	ASTM D3418
Crystallization Heat	47.0 to 52.0	J/g	ASTM D3417
Heat of Fusion	57.0 to 66.0	J/g	ASTM D3417

Electrical	Typical Value	Unit	Test method
Surface Resistivity	> 1.0E+14	ohm	ASTM D257
Volume Resistivity	> 1.0E+14	ohm·cm	ASTM D257

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Notes

Typical properties: these are not to be construed as specifications.

¹ Type IV, 1.0 mm/min

² Type IV, 50 mm/min

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