

Solef® 5130

polyvinylidene fluoride

Solef® 5130 PVDF is an ultra high viscosity grade that gives the best adhesion ideal for its usage in lithium batteries.

General

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Features	• Good Adhesion	• Ultra High Viscosity
Uses	• Batteries	• Binder

Physical	Typical Value	Unit	Test method
Density	1.75 to 1.78	g/cm ³	ISO 1183
Water Absorption ¹ (24 hr, 23°C)	< 0.20	%	ASTM D543

Mechanical	Typical Value	Unit	Test method
Tensile Modulus ² (23°C)	1000 to 1500	MPa	ASTM D638

Thermal	Typical Value	Unit	Test method
Glass Transition Temperature	-40.0	°C	DSC
Melting Temperature	160 to 168	°C	ASTM D3418
Peak Crystallization Temperature (DSC)	135 to 140	°C	ASTM D3418
Heat of Fusion ³	40.0 to 48.0	J/g	ASTM D3418
Thermal Stability ⁴	> 375	°C	TGA

Electrical	Typical Value	Unit	Test method
Surface Resistivity ⁵	> 1.0E+14	ohms	ASTM D257
Volume Resistivity ⁶	> 1.0E+14	ohms·cm	ASTM D257

Additional Information

Intrinsic Viscosity: 0.27 - 0.37 l/g

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Notes

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

¹ 30g

² 1.0 mm/min

³ 80°C to end of melting

⁴ @ 1% weight loss

⁵ Voltage < 1V, after 2 min - 500 V @ 23°C

⁶ Intensity = 10 mA, after 2 min @ 23°C