

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
Density / 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 (24 hr, 23°C)	< 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	ohms	ASTM D257
Volume Resistivity	> 1.0E+14	ohms·cm	ASTM D257

Solef® 6020

polyvinylidene fluoride

Notes

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

¹ Type IV, 1.0 mm/min

² Type IV, 50 mm/min



Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Solvay Group or their respective owners.

© 2019 Solvay Specialty Polymers. All rights reserved.