

Technical Data Sheet



Schulatec PPS E FS

Polyphenylene Sulfide
LyondellBasell Industries
Engineering Plastics

Product Description

PPS unreinforced, impact-modified, with high melt viscosity for extrusion application

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	
Processing Method	• Extrusion		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.17 g/cm ³	1.17 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) ¹	10 cm ³ /10min	10 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	160000 psi	1100 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	5080 psi	35.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	85 %	85 %	ISO 527-2/1A/50
Flexural Modulus	189000 psi	1300 MPa	ISO 178
Flexural Stress (3.5% Strain)	5080 psi	35.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength	29 ft·lb/in ²	60 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength	No Break	No Break	ISO 179/1eU
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness			ISO 868
Shore A, 10 sec	95	95	
Shore D, 10 sec	70	70	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	230 °F	110 °C	ISO 75-2/B
264 psi (1.8 MPa), Annealed	203 °F	95.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	266 °F	130 °C	ISO 306/B50
--	491 °F	255 °C	ISO 306/A50
Melting Temperature (DSC)	536 °F	280 °C	DSC
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Comparative Tracking Index (Solution A)	175 V	175 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	1.5 in/min	38 mm/min	ISO 3795
0.0787 in (2.00 mm)	1.5 in/min	38 mm/min	FMVSS 302
Flame Rating			UL 94
0.030 in (0.75 mm)	HB	HB	
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in (0.75 mm)	1290 °F	700 °C	
0.06 in (1.5 mm)	1290 °F	700 °C	
0.12 in (3.0 mm)	1290 °F	700 °C	

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 in (0.75 mm)	1340 °F	725 °C	
0.06 in (1.5 mm)	1340 °F	725 °C	
0.12 in (3.0 mm)	1340 °F	725 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature - Dry Air Dryer	275 to 284 °F	135 to 140 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	545 to 563 °F	285 to 295 °C

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Notes

¹ 315°C/10.0 kg

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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