

Technical Data Sheet

Schuladur A MV 14 SHI FR 1(f1) black 96.8106

Polybutylene Terephthalate
 LyondellBasell Industries
 Engineering Plastics

Product Description

PBT flame retardant, high impact, (f1) suitable for outdoor use

General

Features	<ul style="list-style-type: none"> Flame Retardant Halogenated 	<ul style="list-style-type: none"> Impact Modified UV Resistant
UL File Number	E86615	
Processing Method	Injection Molding	
Resin ID (ISO 1043)	PBT-I FR(17)	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Density	1.36 g/cm ³	1.36 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (250°C/2.16 Kg)	5.0 cm ³ /10min	5.0 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Tensile Modulus	305000 psi	2100 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	6090 psi	42.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	3.5 %	3.5 %	ISO 527-2/1A/50

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
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Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	2.9 ft·lb/in ²	6.0 kJ/m ²	
73°F (23°C)	5.7 ft·lb/in ²	12 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
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Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	232 °F	111 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	131 °F	55.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	259 °F	126 °C	ISO 306/B50
--	412 °F	211 °C	ISO 306/A50
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Electric Strength ¹			IEC 60243-1
73°F (23°C), 0.0394 In (1.00 Mm), In Oil	790 V/mil	31 kV/mm	
Comparative Tracking Index	200 V	200 V	IEC 60112

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
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Burning Rate			
0.0787 In (2.00 Mm), Self-extinguishing	0.0 in/min	0.0 mm/min	FMVSS 302
0.0787 In (2.00 Mm), Self-extinguishing	0.0 in/min	0.0 mm/min	ISO 3795
Flammability Classification			IEC 60695-11-10, -20
0.030 In (0.75 Mm)	V-0	V-0	
0.06 In (1.5 Mm)	V-0	V-0	
0.12 In (3.0 Mm)	V-0	V-0	



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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Glow Wire Flammability Index			IEC 60695-2-12
0.030 In (0.75 Mm)	1760 °F	960 °C	
0.06 In (1.5 Mm)	1760 °F	960 °C	
0.12 In (3.0 Mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
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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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Processing (Melt) Temp	482 to 500 °F	250 to 260 °C
Mold Temperature	158 to 194 °F	70 to 90 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Screw Speed	< 591 in/min	< 15 m/min

Injection Notes

Mould surface contacting melt should be of non-corrosive steel (content of chrome > 12%)

Notes

¹ 2000 V/sec

Notes

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