

Technical Data Sheet

**Schulatec PP EC 1009 HI BLACK**

Polypropylene Copolymer
LyondellBasell Industries
Engineering Plastics

Product Description

PP reinforced compound with improved impact resistance. Electrical conductive material fulfilling ESD requirements.

General

Material Status	• Commercial: Active
Availability	• Europe
Appearance	• Black
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PP-HI (GF+NT)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.11 g/cm ³	1.11 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR)			ISO 1133
230°C/10.0 kg	35 cm ³ /10min	35 cm ³ /10min	
230°C/2.16 kg	0.30 cm ³ /10min	0.30 cm ³ /10min	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	798000 psi	5500 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	10200 psi	70.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.8 %	3.8 %	ISO 527-2/1A/5
Flexural Modulus ¹	653000 psi	4500 MPa	ISO 178
Flexural Stress ^{1,2} (5.0% Strain)	14500 psi	100 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.3 ft·lb/in ²	7.0 kJ/m ²	
73°F (23°C)	4.8 ft·lb/in ²	10 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	24 ft·lb/in ²	50 kJ/m ²	
73°F (23°C)	24 ft·lb/in ²	50 kJ/m ²	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 132/10)	15200 psi	105 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	302 °F	150 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	266 °F	130 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	239 °F	115 °C	ISO 306/B50
--	320 °F	160 °C	ISO 306/A50
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	1.0E+3 ohms	1.0E+3 ohms	IEC 60093
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302

Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Processing (Melt) Temp	464 to 518 °F	240 to 270 °C
Mold Temperature	104 to 158 °F	40 to 70 °C
Cushion	0.0787 to 0.197 in	2.00 to 5.00 mm

Injection Notes

Predrying

In general no predrying, only when moisture on granulate surface predrying at 80°C for 2-3 hours is recommended.

Reprocessing

Recycled content use possible 10 - 30%. The recycled content from sprues, etc. has to be dry, and not mixed with any other materials.

Shut down

PP can normally be left in the cylinder. It is quite insensitive to temperature.

Remarks

In contact with copper the melt will be degraded. For permanent processing of glass fibre reinforced grades wear resistant screws and cylinders are recommended.

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Notes

¹ 0.079 in/min (2.0 mm/min)

² (Break)

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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