

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

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.

