

Technical Data Sheet

**Schuladur PCR GF 20 HI**

Polybutylene Terephthalate + PET

LyondellBasell Industries

Engineering Plastics

Product Description

20% glass fibre reinforced PBT/PET compound based on mechanical recycled sourcing, providing high impact strength. Standard color is black, color matching for dark colors possible. Automotive structural applications are possible. Automotive structural applications are possible.

According to ISO 14021:2016 Schuladur PCR GF20 HI is a compound containing 10% of recycled material.

Recycled content according to DIN SPEC 91446:2021-12: R10

Data Quality Level according to DIN SPEC 91446:2021-12: DQL4

Data Quality Level according to VDA 284: DQL Automotive

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Recycled Content	• Post-Consumer (PCR), 10%		
Features	• Impact Modified		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• (PBT+PET)-I-GF20		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.39 g/cm ³	1.39 g/cm ³	ISO 1183/A
Apparent (Bulk) Density	0.60 to 0.80 g/cm ³	0.60 to 0.80 g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	26 cm ³ /10min	26 cm ³ /10min	ISO 1133
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.30 %	0.30 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	899000 psi	6200 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	13800 psi	95.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.1 %	3.1 %	ISO 527-2/1A/5
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)	26 ft·lb/in ²	54 kJ/m ²	
73°F (23°C)	27 ft·lb/in ²	56 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	414 °F	212 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	369 °F	187 °C	ISO 75-2/Af
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	475 V	475 V	IEC 60112
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
Flammability Classification			IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

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Additional Information

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

A Certificate of Analysis (CoA) is provided with every lot. DSC data is available on request. Content of not intentionally added other plastics is below 1%.

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Processing (Melt) Temp	500 to 536 °F	260 to 280 °C
Mold Temperature	176 to 230 °F	80 to 110 °C

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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