

Technical Data Sheet



Polyflam RABS 90950 UV5

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

Product Description

20% glass fibre reinforced ABS grade without PBDE

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Flame Retardant • Good Processing Stability	• High Strength • UV Resistant	
UL File Number	• E86615		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.36 g/cm ³	1.36 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	16 cm ³ /10min	16 cm ³ /10min	ISO 1133
Water Absorption Equilibrium, 73°F (23°C), 50% RH	0.80 %	0.80 %	ISO 62
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	870000 psi	6000 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	10900 psi	75.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.8 %	1.8 %	ISO 527-2/1A/5
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength -22°F (-30°C) 73°F (23°C)	2.6 ft·lb/in ² 2.9 ft·lb/in ²	5.4 kJ/m ² 6.0 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength -22°F (-30°C) 73°F (23°C)	9.0 ft·lb/in ² 9.5 ft·lb/in ²	19 kJ/m ² 20 kJ/m ²	ISO 179/1eU
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed 264 psi (1.8 MPa), Unannealed	208 °F 196 °F	98.0 °C 91.0 °C	ISO 75-2/Bf ISO 75-2/Af
Vicat Softening Temperature -- --	201 °F 223 °F	94.0 °C 106 °C	ISO 306/B50 ISO 306/A50
Ball Pressure Test (194°F (90°C))	Pass	Pass	IEC 60695-10-2
RTI Elec 0.06 in (1.5 mm) 0.12 in (3.0 mm)	140 °F 140 °F	60.0 °C 60.0 °C	UL 746B
RTI Imp 0.06 in (1.5 mm) 0.12 in (3.0 mm)	140 °F 140 °F	60.0 °C 60.0 °C	UL 746B
RTI Str 0.06 in (1.5 mm) 0.12 in (3.0 mm)	140 °F 140 °F	60.0 °C 60.0 °C	UL 746B
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	550 V	550 V	IEC 60112

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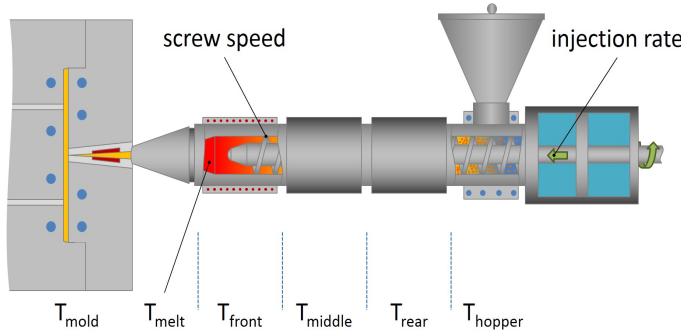
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	FMVSS 302
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	ISO 3795
Flame Rating			UL 94
0.06 in (1.5 mm)	V-0	V-0	IEC 60695-11-10, -20
0.12 in (3.0 mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
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
0.06 in (1.5 mm)	1340 °F	725 °C	
0.12 in (3.0 mm)	1340 °F	725 °C	
Oxygen Index	32 %	32 %	ISO 4589-2

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Processing (Melt) Temp	428 to 464 °F	220 to 240 °C
Mold Temperature	104 to 140 °F	40 to 60 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Screw Speed	< 709 in/min	< 18 m/min

Injection Notes

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

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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