

Technical Data Sheet

Polyflam RPP 3000 SF

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

Product Description

Flame retardant polypropylene homopolymer compound with high flowability

General

Features	• Flame Retardant	• Halogenated	• Homopolymer
UL File NumberEurope	• E86615-104148102		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Density	1.00 g/cm ³	1.00 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg)	20 cm ³ /10min	20 cm ³ /10min	ISO 1133
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% Rh	0.16 %	0.16 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Tensile Modulus	218000 psi	1500 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	4500 psi	31.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	9.0 %	9.0 %	ISO 527-2/1A/50
Flexural Modulus (73°F (23°C))	225000 psi	1550 MPa	ISO 178
Flexural Stress	5800 psi	40.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
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Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.95 ft·lb/in ²	2.0 kJ/m ²	
73°F (23°C)	1.4 ft·lb/in ²	3.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	6.7 ft·lb/in ²	14 kJ/m ²	
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	192 °F	89.0 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	122 °F	50.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	172 °F	78.0 °C	ISO 306/B50
--	306 °F	152 °C	ISO 306/A120
Ball Pressure Test (275°F (135°C))	Pass	Pass	IEC 60695-10-2

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
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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	600 V	600 V	IEC 60112

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
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Flammability Classification			IEC 60695-11-10, -20
0.06 In (1.6 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	

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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
Rear Temperature	356 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	410 °F	210 °C
Nozzle Temperature	428 °F	220 °C
Processing (Melt) Temp	356 to 428 °F	180 to 220 °C
Mold Temperature	104 to 176 °F	40 to 80 °C
Injection Pressure	11600 to 17400 psi	80.0 to 120 MPa
Injection Rate	Slow-Moderate	Slow-Moderate
Holding Pressure	5800 to 13100 psi	40.0 to 90.0 MPa
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Cushion	< 0.197 in	< 5.00 mm
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.