

Technical Data Sheet



Polyflam RIPP 4000 OSD K3014

Polypropylene Copolymer
LyondellBasell Industries
Engineering Plastics

Product Description

Flame-retardant PP-Copolymer, halogenfree, optimized smoke density

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Copolymer • Flame Retardant	• Halogen Free • Low Smoke Emission	
UL File Number	• E86615		
Processing Method	• Extrusion	• Injection Molding	
Resin ID (ISO 1043)	• PP FR(51)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.07 g/cm ³	1.07 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	4.0 cm ³ /10min	4.0 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	305000 psi	2100 MPa	ISO 527-1/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	2900 psi	20.0 MPa	
Break	2180 psi	15.0 MPa	
Tensile Strain (Yield)	3.3 %	3.3 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	50 %	50 %	ISO 527-2/1A/50
Flexural Modulus ¹	305000 psi	2100 MPa	ISO 178
Flexural Stress ¹			ISO 178
4.0% Strain	5080 psi	35.0 MPa	
3.5% Strain	5080 psi	35.0 MPa	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.48 ft·lb/in ²	1.0 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)	9.5 ft·lb/in ²	20 kJ/m ²	
73°F (23°C)	No Break	No Break	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	208 °F	98.0 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	140 °F	60.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	165 °F	74.0 °C	ISO 306/B50
--	311 °F	155 °C	ISO 306/A50

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
Electric Strength ²			IEC 60243-1
73°F (23°C), 0.0394 in (1.00 mm), in Oil	1100 V/mil	43 kV/mm	
Comparative Tracking Index (CTI)	600 V	600 V	UL 746A

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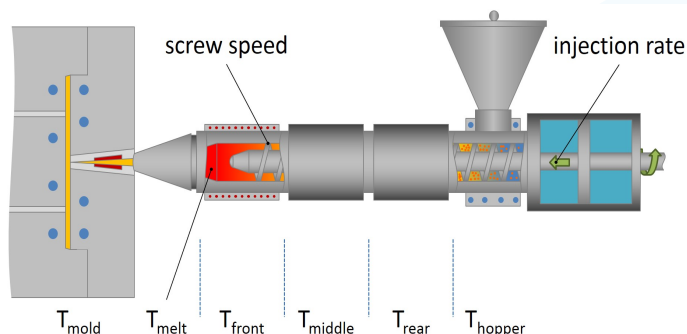
Flammability	Nominal Value (English)		Nominal Value (SI)	Test Method
Burning Rate				
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min		0.0 mm/min	ISO 3795
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min		0.0 mm/min	FMVSS 302
Flammability Classification				IEC 60695-11-10, -20
0.030 in (0.75 mm)	V-0		V-0	
•	V-0		V-0	
--	5VB		5VB	
•	V-0		V-0	
0.12 in (3.0 mm)	V-0		V-0	
Glow Wire Flammability Index				IEC 60695-2-12
0.030 in (0.75 mm)	1760 °F		960 °C	
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
0.030 in (0.75 mm)	1340 °F		725 °C	
0.06 in (1.5 mm)	1340 °F		725 °C	
0.12 in (3.0 mm)	1340 °F		725 °C	
Oxygen Index	33 %		33 %	ISO 4589-2

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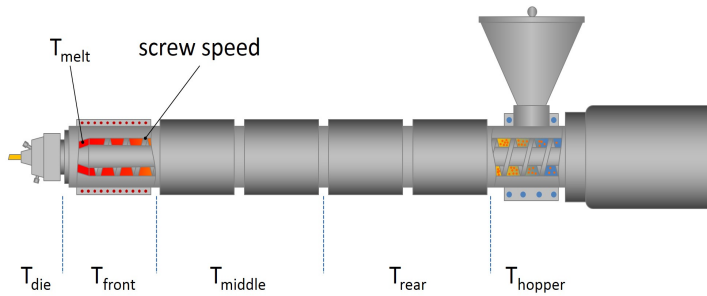
Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	356 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	410 °F	210 °C
Nozzle Temperature	428 °F	220 °C
Processing (Melt) Temp	356 to 428 °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

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Extrusion	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
Suggested Max Moisture	< 0.10 %	< 0.10 %
Melt Temperature	338 to 410 °F	170 to 210 °C

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Notes

¹ 0.079 in/min (2.0 mm/min)

² 2000 V/sec

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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