

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

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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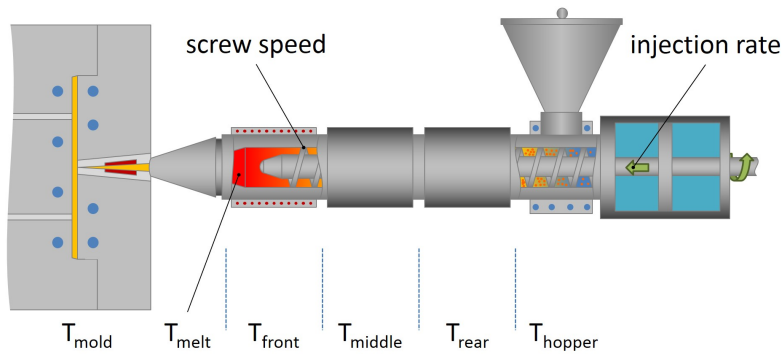
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Flammability	Nominal Value (English)		Nominal Value (SI)		Test Method
Burning Rate					
0.0787 In (2.00 Mm), Self-extinguishing		0.0 in/min		0.0 mm/min	ISO 3795
0.0787 In (2.00 Mm), Self-extinguishing		0.0 in/min		0.0 mm/min	FMVSS 302
Flammability Classification					IEC 60695-11-10, -20
0.030 In (0.75 Mm)		V-0		V-0	
--	•	V-0	•	V-0	
	•	5VB	•	5VB	
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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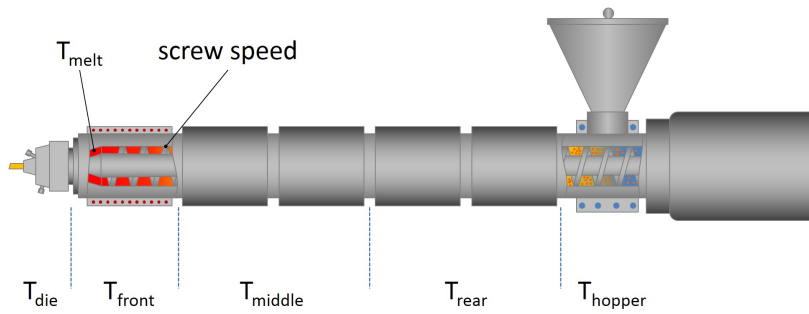


Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	356 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	410 °F	210 °C
Nozzle Temperature	428 °F	220 °C
Processing (Melt) Temp	356 to 428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