

Technical Data Sheet

Polyflam RIPP 4000 OSD SF GRY 64540

Polypropylene Copolymer
LyondellBasell Industries
Engineering Plastics

Product Description

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

General

Features	- Copolymer - Flame Retardant	- Good Processability - Halogen Free
Processing Method	Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.08 g/cm ³	1.08 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg)	9.0 cm ³ /10min	9.0 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	276000 psi	1900 MPa	ISO 527-1/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	2470 psi	17.0 MPa	
Break	1890 psi	13.0 MPa	
Tensile Strain (Yield)	2.5 %	2.5 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	18 %	18 %	ISO 527-2/1A/50
Flexural Modulus ¹	305000 psi	2100 MPa	ISO 178
Flexural Stress ¹ (3.5% Strain)	4060 psi	28.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.76 ft·lb/in ²	1.6 kJ/m ²	
73°F (23°C)	1.1 ft·lb/in ²	2.3 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)	33 ft·lb/in ²	70 kJ/m ²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	226 °F	108 °C	ISO 75-2/B
264 Psi (1.8 Mpa), Unannealed	138 °F	59.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	172 °F	78.0 °C	ISO 306/B50
--	297 °F	147 °C	ISO 306/A50

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

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
Flammability Classification			IEC 60695-11-10, -20
0.030 In (0.75 Mm)	V-0	V-0	
0.06 In (1.5 Mm)	V-0	V-0	
0.12 In (3.0 Mm)	V-0	V-0	

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
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	

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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