

Polyflam RPP 4000 E NAT

LyondellBasell Industries - Polypropylene Homopolymer

General Information

Product Description

Unfilled flame-retardant PP-Homopolymer, Extrusion grade, halogenfree

General

Additive	• Flame Retardant
Features	• Flame Retardant • Good Processability
Processing Method	• Extrusion • Injection Molding
Resin ID	• PP FR(51)

Properties ¹

Physical	Nominal Value	Unit	Test Method
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Density	1.06	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	2.0	cm ³ /10min	ISO 1133

Mechanical	Nominal Value	Unit	Test Method
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Tensile Modulus	377000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	3890	psi	ISO 527-2/1A/50
Tensile Stress (Break)	2410	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.1	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	26	%	ISO 527-2/1A/50
Flexural Modulus ²	334000	psi	ISO 178
Flexural Stress ²			ISO 178
5.1% Strain	5660	psi	
3.5% Strain	5380	psi	

Impact	Nominal Value	Unit	Test Method
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Charpy Notched Impact Strength			ISO 179/1eA
-22°F	0.71	ft-lb/in ²	
73°F	1.2	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	7.1	ft-lb/in ²	
73°F	19	ft-lb/in ²	

Thermal	Nominal Value	Unit	Test Method
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Deflection Temperature Under Load (66 psi, Unannealed)	226	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed	136	°F	ISO 75-2/Af
Vicat Softening Temperature			
--	207	°F	ISO 306/B50
--	309	°F	ISO 306/A50

Electrical	Nominal Value	Unit	Test Method
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Comparative Tracking Index	600	V	IEC 60112
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Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.03 in		V-0	
0.06 in		V-0	
0.13 in		V-0	
0.12 in		5V	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in	1760	°F	
0.06 in	1760	°F	
0.12 in	1760	°F	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 in	1430	°F	
0.06 in	1430	°F	
0.12 in	1430	°F	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	158	°F
Drying Time	2.0 to 4.0	hr
Processing (Melt) Temp	356 to 410	°F
Mold Temperature	104 to 176	°F
Injection Pressure	11600 to 17400	psi
Injection Rate	Slow-Moderate	
Holding Pressure	5800 to 13100	psi
Back Pressure	725 to 1450	psi
Screw Speed	< 709	in/min
Extrusion	Nominal Value	Unit
Drying Temperature	158 to 176	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	< 0.10	%
Melt Temperature	338 to 410	°F

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min