

Technical Data Sheet

Polyflam RPP 1221

Polypropylene Copolymer
 LyondellBasell Industries
 Engineering Plastics

Product Description

Polyflam® RPP 1221 is a Low-Blooming General Purpose Copolymer Polypropylene Flame-Retardant material with a UL V-2 flammability rating and 115° C temperature index @ 0.030 in.

General

Features	• Flame Retardant
UL File NumberUsa	• E51193
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	0.952	0.950 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)	20 g/10 min	20 g/10 min	ASTM D1238

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	3190 psi	22.0 MPa	ASTM D638
Tensile Elongation (Break)	100 %	100 %	ASTM D638
Flexural Modulus	144000 psi	990 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	3.4 ft·lb/in	180 J/m	ASTM D256

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed	176 °F	80.0 °C	
264 Psi (1.8 Mpa), Unannealed	122 °F	50.0 °C	
RTI Elec (0.030 In (0.76 Mm))	239 °F	115 °C	UL 746B

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 In (1.5 Mm)	V-2	V-2	
0.12 In (3.0 Mm)	V-2	V-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
Processing (Melt) Temp	356 to 410 °F	180 to 210 °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 11600 psi	40.0 to 80.0 MPa
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa

Notes

These are typical property values not to be construed as specification limits.