Technical Data Sheet

Polyflam RPP 2000 S

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

Product Description
Flame retardant polypropylene homopolymer compound, UV stabilized for outdoor applications (i.e. stadium seats), free of halogens

General			
Additive	• UV Stabilizer		
Features	• Flame Retardant	• Halogen Free	• Homopolymer
Uses	• Outdoor Applications	• Seats	
UL File Number	• E86615		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP FR(40)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.910 g/cm³	0.910 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°c/2.16 Kg)	7.0 cm³/10min	7.0 cm³/10min	ISO 1133
Water Absorption			ISO 62
Equilibrium, 73°f (23°c), 50% Rh	0.16 %	0.16 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	160000 psi	1100 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	4640 psi	32.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	11 %	11 %	ISO 527-2/1A/50
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength (73°f (23°c))	2.4 ft·lb/in²	5.0 kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
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	201 °F	94.0 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	120 °F	49.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	194 °F	90.0 °C	ISO 306/B50
--	304 °F	151 °C	ISO 306/A120
Ball Pressure Test (284°f (140°c))	Pass	Pass	IEC 60695-10-2
RTI Elec			UL 746B
0.030 In (0.75 Mm)	149 °F	65.0 °C	
0.06 In (1.5 Mm)	149 °F	65.0 °C	
0.12 In (3.0 Mm)	149 °F	65.0 °C	
RTI Imp			UL 746B
0.030 In (0.75 Mm)	149 °F	65.0 °C	
0.06 In (1.5 Mm)	149 °F	65.0 °C	
0.12 In (3.0 Mm)	149 °F	65.0 °C	
RTI Str			UL 746B
0.030 In (0.75 Mm)	149 °F	65.0 °C	
0.06 In (1.5 Mm)	149 °F	65.0 °C	
0.12 In (3.0 Mm)	149 °F	65.0 °C	

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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
Comparative Tracking Index	600 V	600 V	IEC 60112
High Amp Arc Ignition (HAI)			UL 746A
0.030 In (0.75 Mm)	PLC 0	PLC 0	
0.06 In (1.5 Mm)	PLC 0	PLC 0	
0.12 In (3.0 Mm)	PLC 0	PLC 0	
Hot-wire Ignition (HWI)			UL 746A
0.030 In (0.75 Mm)	PLC 4	PLC 4	
0.06 In (1.5 Mm)	PLC 3	PLC 3	
0.12 In (3.0 Mm)	PLC 2	PLC 2	
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
0.03 In (0.8 Mm)	V-2	V-2	
0.06 In (1.6 Mm)	V-2	V-2	
0.13 In (3.2 Mm)	V-2	V-2	
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)	1610 °F	875 °C	
0.06 In (1.5 Mm)	1560 °F	850 °C	
0.12 In (3.0 Mm)	1470 °F	800 °C	
Oxygen Index	26 %	26 %	ISO 4589-2

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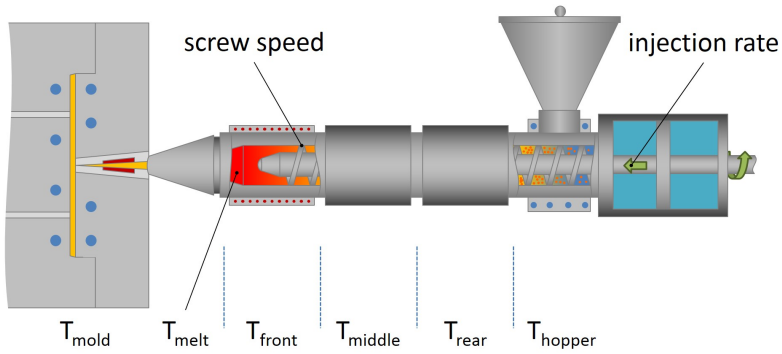

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Processing (Melt) Temp	356 to 410 °F	180 to 210 °C
Mold Temperature	104 to 176 °F	40 to 80 °C

Notes

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