

Technical Data Sheet

Polyflam RPP 374 ND CS1 5V

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

Product Description

20% talc filled flame-retardant PP-Homopolymer; without PBDE

General

Filler / Reinforcement	• Talc, 20% Filler by Weight		
Features	• Copper Contact Stabilized	• Flame Retardant	• Homopolymer
UL File Number	• E86615 (Europe) E51193 (US)		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP TD20 FR(17)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.45 g/cm³	1.45 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg)	5.0 cm³/10min	5.0 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	537000 psi	3700 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	3920 psi	27.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	2.0 %	2.0 %	ISO 527-2/1A/50
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.86 ft·lb/in²	1.8 kJ/m²	
73°F (23°C)	0.95 ft·lb/in²	2.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	5.7 ft·lb/in²	12 kJ/m²	
73°F (23°C)	5.7 ft·lb/in²	12 kJ/m²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	244 °F	118 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	176 °F	80.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	198 °F	92.0 °C	ISO 306/B50
--	311 °F	155 °C	ISO 306/A50
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2
RTI Elec			UL 746B
0.06 In (1.5 Mm)	221 °F	105 °C	
0.07 In (1.8 Mm)	221 °F	105 °C	
0.12 In (3.0 Mm)	221 °F	105 °C	
RTI Imp			UL 746B
0.06 In (1.5 Mm)	221 °F	105 °C	
0.07 In (1.8 Mm)	221 °F	105 °C	
0.12 In (3.0 Mm)	221 °F	105 °C	
RTI Str			UL 746B
0.06 In (1.5 Mm)	221 °F	105 °C	
0.07 In (1.8 Mm)	221 °F	105 °C	
0.12 In (3.0 Mm)	221 °F	105 °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
0.06 In (1.5 Mm)	PLC 0	PLC 0	
0.07 In (1.8 Mm)	PLC 0	PLC 0	
0.12 In (3.0 Mm)	PLC 0	PLC 0	
Hot-wire Ignition (HWI)			UL 746A
0.06 In (1.5 Mm)	PLC 3	PLC 3	
0.07 In (1.8 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	FMVSS 302
0.0787 In (2.00 Mm), Self-extinguishing	0.0 in/min	0.0 mm/min	ISO 3795
Flame Rating			UL 94 IEC 60695-11-10, -20
0.06 In (1.5 Mm)	V-0	V-0	
0.12 In (3.0 Mm)	V-0	V-0	
0.07 In (1.8 Mm)	5VA	5VA	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 In (1.5 Mm)	1760 °F	960 °C	
0.07 In (1.8 Mm)	1760 °F	960 °C	
0.12 In (3.0 Mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 In (1.5 Mm)	1380 °F	750 °C	
0.07 In (1.8 Mm)	1380 °F	750 °C	
0.12 In (3.0 Mm)	1380 °F	750 °C	
Oxygen Index	29 %	29 %	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 to 390 °F	180 to 199 °C
Middle Temperature	356 to 410 °F	180 to 210 °C
Front Temperature	356 to 410 °F	180 to 210 °C
Nozzle Temperature	356 to 428 °F	180 to 220 °C
Processing (Melt) Temp	356 to 428 °F	180 to 220 °C
Mold Temperature	100 to 160 °F	38 to 71 °C
Injection Pressure	11600 to 17400 psi	80.0 to 120 MPa
Holding Pressure	5800 to 13100 psi	40.0 to 90.0 MPa
Back Pressure	< 100 psi	< 0.689 MPa
Cushion	< 0.197 in	< 5.00 mm

Injection Notes

Mould surface contacting melt should
be of non-corrosive steel (content of chrome > 12%)

Notes

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