

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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
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/cm ³	1.45 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	5.0 cm ³ /10min	5.0 cm ³ /10min	ISO 1133
Water Absorption Equilibrium, 73°F (23°C), 50% RH	0.16 %	0.16 %	ISO 62
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 -22°F (-30°C) 73°F (23°C)	0.86 ft·lb/in ² 0.95 ft·lb/in ²	1.8 kJ/m ² 2.0 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength -22°F (-30°C) 73°F (23°C)	5.7 ft·lb/in ² 5.7 ft·lb/in ²	12 kJ/m ² 12 kJ/m ²	ISO 179/1eU
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed 264 psi (1.8 MPa), Unannealed	244 °F 176 °F	118 °C 80.0 °C	ISO 75-2/Bf ISO 75-2/Af
Vicat Softening Temperature -- --	198 °F 311 °F	92.0 °C 155 °C	ISO 306/B50 ISO 306/A50
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2
RTI Elec 0.06 in (1.5 mm) 0.07 in (1.8 mm) 0.12 in (3.0 mm)	221 °F 221 °F 221 °F	105 °C 105 °C 105 °C	UL 746B
RTI Imp 0.06 in (1.5 mm) 0.07 in (1.8 mm) 0.12 in (3.0 mm)	221 °F 221 °F 221 °F	105 °C 105 °C 105 °C	UL 746B
RTI Str 0.06 in (1.5 mm) 0.07 in (1.8 mm) 0.12 in (3.0 mm)	221 °F 221 °F 221 °F	105 °C 105 °C 105 °C	UL 746B

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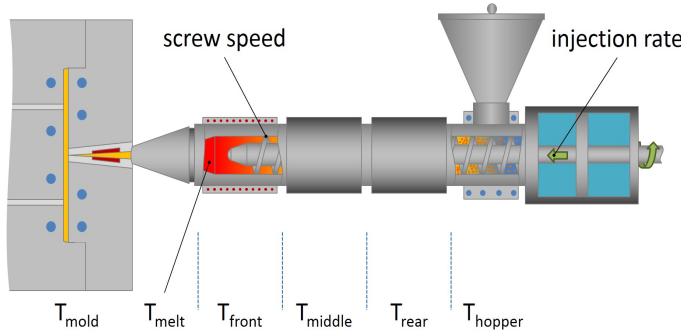
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	600 V	600 V	IEC 60112
High Amp Arc Ignition (HAI)			UL 746A
0.06 in (1.5 mm)	PLC 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
0.06 in (1.5 mm)	V-0	V-0	IEC 60695-11-10, -20
0.12 in (3.0 mm)	V-0	V-0	
0.07 in (1.8 mm)	5VA	5VA	
	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.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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