

Technical Data Sheet



Polyflam RIPP 374 ND CS1 5V

Polypropylene Copolymer
LyondellBasell Industries
Engineering Plastics

Product Description

20% talc filled flame-retardant PP-Copolymer; without PBDE UL94 5VA rated

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Talc, 20% Filler by Weight		
Features	• Block Copolymer	• Copper Contact Stabilized	• Flame Retardant
UL File Number	• E86615		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP TD20 FR(17)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.39 g/cm ³	1.39 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
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	348000 psi	2400 MPa	ISO 527-1/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	2900 psi	20.0 MPa	
Break	1310 psi	9.00 MPa	
Tensile Strain (Yield)	2.0 %	2.0 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	15 %	15 %	ISO 527-2/1A/50
Flexural Modulus ¹	363000 psi	2500 MPa	ISO 178
Flexural Stress ¹			ISO 178
3.0% Strain	4350 psi	30.0 MPa	
3.5% Strain	4210 psi	29.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.95 ft·lb/in ²	2.0 kJ/m ²	
73°F (23°C)	4.8 ft·lb/in ²	10 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	6.2 ft·lb/in ²	13 kJ/m ²	
73°F (23°C)	17 ft·lb/in ²	35 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	181 °F	83.0 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	127 °F	53.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	138 °F	59.0 °C	ISO 306/B50
--	279 °F	137 °C	ISO 306/A50
Ball Pressure Test (212°F (100°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	
0.08 in (2.0 mm)	149 °F	65.0 °C	
0.12 in (3.0 mm)	149 °F	65.0 °C	

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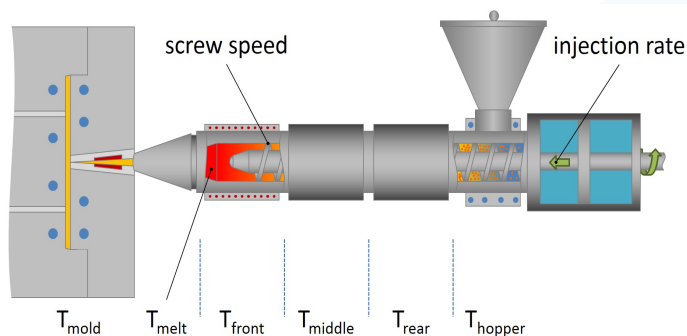
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
RTI Imp			UL 746B
0.030 in (0.75 mm)	149 °F	65.0 °C	
0.06 in (1.5 mm)	149 °F	65.0 °C	
0.08 in (2.0 mm)	149 °F	65.0 °C	
0.12 in (3.0 mm)	149 °F	65.0 °C	
RTI Str			UL 746B
0.030 in (0.75 mm)	149 °F	65.0 °C	
0.06 in (1.5 mm)	149 °F	65.0 °C	
0.08 in (2.0 mm)	149 °F	65.0 °C	
0.12 in (3.0 mm)	149 °F	65.0 °C	
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	
0.08 in (2.0 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 2	PLC 2	
0.06 in (1.5 mm)	PLC 3	PLC 3	
0.08 in (2.0 mm)	PLC 3	PLC 3	
0.12 in (3.0 mm)	PLC 3	PLC 3	
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
Flame Rating			UL 94 IEC 60695-11-10, -20
0.030 in (0.75 mm)	V-0	V-0	
0.06 in (1.5 mm)	V-0	V-0	
0.12 in (3.0 mm)	V-0	V-0	
0.08 in (2.0 mm)	5VA	5VA	
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)	1560 °F	850 °C	
0.06 in (1.5 mm)	1470 °F	800 °C	
0.12 in (3.0 mm)	1470 °F	800 °C	

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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 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	410 °F	210 °C
Nozzle Temperature	428 °F	220 °C
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 13100 psi	40.0 to 90.0 MPa
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Cushion	< 0.197 in	< 5.00 mm
Screw Speed	< 709 in/min	< 18 m/min

Injection Notes

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

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Notes

¹ 0.079 in/min (2.0 mm/min)

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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