

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

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%)