

Technical Data Sheet

Polyflam RPP 374 ND CS1 5V WHI81700



Polypropylene, Homopolymer

Product Description

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

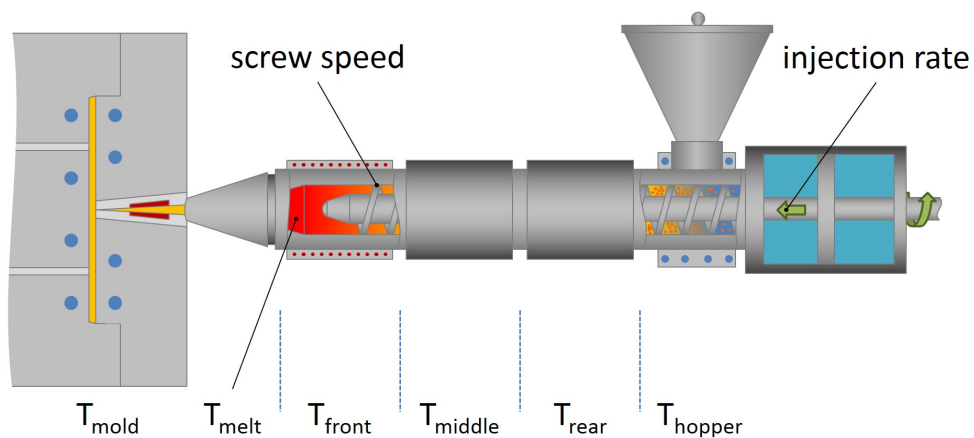
Regulatory Status

For regulatory compliance information, see *Polyflam RPP 374 ND CS1 5V WHI81700* [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Africa-Middle East; Asia-Pacific; Europe; Latin America; North America
Processing Method	Injection Molding
Attribute	Copper Contact Stabilized; Homopolymer
Additive	Flame Retardant
Filler/Reinforcement	Talc, 20%
Resin ID	PP TD20 FR(17)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	5.0	cm ³ /10 min	ISO 1133
Density, (Method A)	1.45	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	27.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	2.0	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	3700	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	2.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	1.8	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	12	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	12	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (125 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	92.0	°C	ISO 306
(A (10N), 50 °C/h)	155	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	118	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	80.0	°C	ISO 75-2/A

RTI Elec			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
(1.8 mm)	105	°C	UL 746B
RTI Imp			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
(1.8 mm)	105	°C	UL 746B
RTI Str			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
(1.8 mm)	105	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112
High Amp Arc Ignition			UL 746A
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Hot-wire Ignition (HWI)			UL 746A
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
(1.8 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
(1.8 mm)	750	°C	IEC 60695-2-13
Oxygen Index	29	%	ISO 4589-2
Additional Information			
Water Absorption 23C/50RH	0.16	%	ISO 62
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
(3.0 mm)	5VA		UL 94
(1.8 mm)	5VA		UL 94
Flammability Classification			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(1.8 mm)	5VA		IEC 60695-11-10, -20
(3.0 mm)	5VA		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number, (Europe) E51193 (US)	E86615		



Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	70 to 80	°C
Nozzle Temperature	180 to 220	°C
Processing (Melt) Temp	180 to 220	°C
Front Temperature	180 to 210	°C
Holding Pressure	40.0 to 90.0	MPa
Middle Temperature	180 to 210	°C
Rear Temperature	180 to 199	°C
Back Pressure	<0.689	MPa
Mold Temperature	38 to 71	°C
Injection Pressure	80.0 to 120	MPa
Cushion	<5.00	mm

Notes

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

Processing notes

Melt contacting surfaces should be made of a high quality, corrosive resistant steel. Positive experiences have been made with steel qualities containing > 12% chromium.

Avoid processing at very barrel high temperatures or above the recommended melt temperature range as this can increase risk of deposit onto the tool surfaces. Avoid long residence times. At start and end of production, it is recommended to purge clean with non-flame retardant polymer or a polyolefin.

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.

Company Information

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

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