Technical Data Sheet

Polyflam RPP 2000 NAT

Polypropylene, Homopolymer

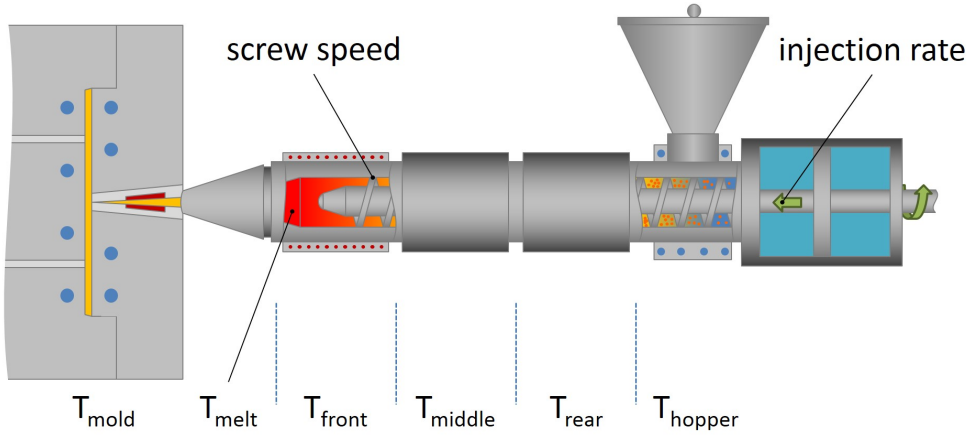
Product Description
Unfilled PP-Compound, halogen free

Status	Commercial: Active
Availability	Europe
Processing Method	Injection Molding
Attribute	Flame Retardant; Halogen Free; UL Listed under File Numbers E86615 / E132739 / E31765
Resin ID	PP FR(53)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (230 °C/2.16 kg)	8.0	g/10 min	ISO 1133
Density, (Method A)	0.910	g/cm³	ISO 1183
Mechanical			
Tensile Modulus, (23 °C, 1 mm/min, Type 1A)	1800	MPa	ISO 527-1
Tensile Strain at Break, (Type 1A, 23 °C, 50 mm/min)	8.0	%	ISO 527-2
Tensile Stress at Yield, (Type 1A, 23 °C, 50 mm/min)	38.0	MPa	ISO 527-2
Impact			
Charpy Impact Strength - Notched			
(23 °C)	7.0	kJ/m²	ISO 179-1/1eA
(-30 °C)	3.0	kJ/m²	ISO 179-1/1eA
Charpy Impact Strength - Unnotched			
(-30 °C)	17.0	kJ/m²	ISO 179-1/1eU
(23 °C)	-	kJ/m²	ISO 179-1/1eU
Hardness			
Ball Pressure Test, (145 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(A50)	157	°C	ISO 306
(B50)	97	°C	ISO 306
(A (10N), 50 °C/h)	157	°C	ISO 306
Deflection Temperature Under Load			
(0.45 MPa, Unannealed)	102	°C	ISO 75-2/B
(1.80 MPa, Unannealed)	59.0	°C	ISO 75-2/B
RTI Elec			
(1.5 mm)	65	°C	UL 746B
(3.0 mm)	65	°C	UL 746B
(0.75 mm)	65	°C	UL 746B

Manufacturer website: https://www.lyondellbasell.com/en/

RTI Imp			
(1.5 mm)	65	°C	UL 746B
(3.0 mm)	65	°C	UL 746B
(0.75 mm)	65	°C	UL 746B
RTI Str			
(1.5 mm)	65	°C	UL 746B
(3.0 mm)	65	°C	UL 746B
(0.75 mm)	65	°C	UL 746B
Electrical			
Surface Resistivity	1.0E+15	ohm	IEC 60093
Volume Resistivity	1.0E+13	ohm*m	IEC 60093
Comparative Tracking Index (CTI)	600	V	IEC 60112
Flammable			
Flame Rating - UL			
(0.75 mm)	V-2		UL 94
(1.5 mm)	V-2		UL 94
(3.0 mm)	V-2		UL 94
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
Glow Wire Flammability Index			
(0.75 mm)	960	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(0.75 mm)	875	°C	IEC 60695-2-13
(1.5 mm)	850	°C	IEC 60695-2-13
(3.0 mm)	800	°C	IEC 60695-2-13
Oxygen Index	27	%	ISO 4589-2



Injection Parameters	Nominal Value	Units
Drying Temperature	70-80	°C
Drying Time	2-4	hr
Rear Temperature	180	°C
Middle Temperature	200	°C

Front Temperature	210	°C
Nozzle Temperature	220	°C
Processing (Melt) Temp	180-210	°C
Mold Temperature	40-80	°C
Screw Speed	<18	m/min
Holding Pressure	40-90	MPa
Back Pressure	5-10	MPa
Injection Pressure	80-120	MPa
Injection Rate	Slow-moderate	
Cushion	<5	mm

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.