Technical Data Sheet

Polyflam RIPP 4000 E NAT

Polypropylene Copolymer

Product Description

Polyflam RIPP 4000 E NAT is an unfilled flame-retardant PP-Copolymer. This grade is developed for extrusion and features a halogen free flame-retardant system.

Regulatory Status

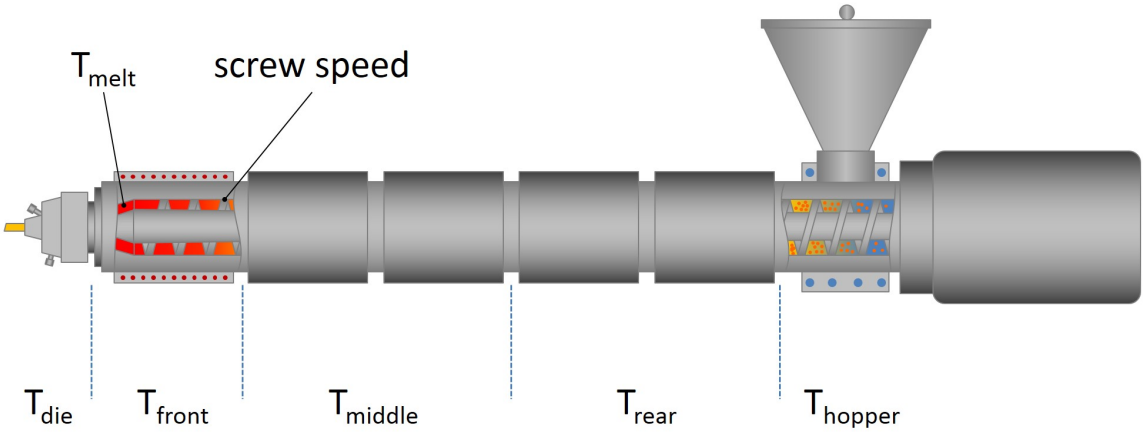
For regulatory compliance information, see *Polyflam* RIPP 4000 E NAT Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Inactive
Availability	Africa-Middle East; Asia-Pacific; Europe; Latin America; North America
Processing Method	Extrusion
Attribute	Copolymer; Good Processability; Halogen Free
Additive	Flame Retardant
Resin ID	PP FR(40)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	2	cm³/10 min	ISO 1133
Density, (Method A)	1.06	g/cm³	ISO 1183
Mechanical			
Tensile Modulus, (1 mm/min, Type 1A)	1600	MPa	ISO 527-1
Tensile Strain at Yield, (Type 1A, 50 mm/min)	3.7	%	ISO 527-2
Nominal Tensile Strain at Break, (50 mm/min, Type 1A)	100	%	ISO 527-2
Tensile Stress at Yield, (Type 1A, 50 mm/min)	15	MPa	ISO 527-2
Tensile Stress at Break, (Type 1A, 50 mm/min)	12	MPa	ISO 527-2
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	7.0	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	3.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	35	kJ/m²	ISO 179
Thermal			
Vicat Softening Temperature			
(A (10N), 50 °C/h)	138	°C	ISO 306
(B (50N), 50 °C/h)	57	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa)	94	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	55	°C	ISO 75-2/A
Electrical			
Surface Resistivity	>1.0E+15	ohm	IEC 60093

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Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112
Flammable			
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			
(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)	700	°C	IEC 60695-2-13
(1.5 mm)	700	°C	IEC 60695-2-13
(3.0 mm)	700	°C	IEC 60695-2-13
UL Information			
Flame Rating			
(0.75 mm)	V-0		UL 94
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
Flammability Classification			
(0.75 mm)	V-0		IEC 60695-11-10, -20
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		



Extrusion Parameters	Nominal Value	Units
Drying Temperature	70 to 80	°C
Drying Time	2.0 to 4.0	hr
Melt Temperature	180 to 220	°C

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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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