Technical Data Sheet

Polyflam RPP 3000 SF GRY60535

Polypropylene, Homopolymer

Product Description

Flame retardant polypropylene homopolymer compound with high flowability

Processing Method	Injection Molding
Attribute	Halogenated; Homopolymer
Additive	Flame Retardant

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	20	cm³/10 min	ISO 1133
Density, (Method A)	1.00	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	31.0	MPa	ISO 527-2
Flexural Modulus, (23 °C)	1550	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 50 mm/min)	9.0	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	1500	MPa	ISO 527-1
Flexural Stress	40	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	3.0	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	2.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	14	kJ/m²	ISO 179
Hardness			
Ball Pressure Test, (135 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	78.0	°C	ISO 306
(A (10N), 120 °C/h)	152	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	89.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	50.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112

Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Glow Wire Flammability Index			
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	725	°C	IEC 60695-2-13
(3.0 mm)	725	°C	IEC 60695-2-13
Additional Information			
Water Absorption 23C/50RH	0.16	%	ISO 62
UL Information			
Flammability Classification, (1.6 mm)	V-0		IEC 60695-11-10, -20
UL File Number, (Europe)	E86615-104148102		

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	70 to 80	°C
Nozzle Temperature	220	°C
Screw Speed	<300	mm/sec
Processing (Melt) Temp	180 to 220	°C
Front Temperature	210	°C
Holding Pressure	40.0 to 90.0	MPa
Middle Temperature	200	°C
Rear Temperature	180	°C
Injection Rate	Slow-Moderate	
Back Pressure	5.00 to 10.0	MPa
Mold Temperature	40 to 80	°C
Injection Pressure	80.0 to 120	MPa
Cushion	<5.00	mm