Technical Data Sheet

Polyflam RPP 5125 GRY60305

Polypropylene, Homopolymer

Product Description
25% mineral filled flame-retardant PP-Homopolymer

Processing Method	Injection Molding
Attribute	Halogenated; Homopolymer; Low Density
Additive	Flame Retardant
Filler/Reinforcement	Mineral\Talc, 25%
Resin ID	PP MT25 FR(17)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	17	cm³/10 min	ISO 1133
Density, (Method A)	1.23	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield	31	MPa	ISO 527-2
Flexural Modulus	3400	MPa	ISO 178
Tensile Strain at Yield	4	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	3000	MPa	ISO 527-1
Flexural Stress	45	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	2.0	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	1.5	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	22	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	11	kJ/m²	ISO 179
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	74.0	°C	ISO 306
(A (10N), 50 °C/h)	147	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	95.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	55.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Surface Resistivity	>1.0E+15	ohm	IEC 60093

Flammable			
Glow Wire Flammability Index			
(1.5 mm)	960	°C	IEC 60695-2-12
(2.0 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	700	°C	IEC 60695-2-13
(3.0 mm)	700	°C	IEC 60695-2-13
(2.0 mm)	700	°C	IEC 60695-2-13
UL Information			
Flame Rating			
(1.6 mm)	V-2		UL 94
(3.2 mm)	V-2		UL 94
(2.0 mm)	V-2		UL 94
Flammability Classification			
(1.6 mm)	V-2		IEC 60695-11-10, -20
(2.0 mm)	V-2		IEC 60695-11-10, -20
(3.2 mm)	V-2		IEC 60695-11-10, -20

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	200 to 230	°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