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Technical Data Sheet

Polyflam RPP 60335 CS1 5V GRY67820

Polypropylene, Homopolymer

Product Description

25% mineral filled flame-retardant PP-Homopolymer; without PBDE

Processing Method	Injection Molding
Attribute	Copper Contact Stabilized; Good Strength; Homopolymer
Additive	Flame Retardant
Filler/Reinforcement	Mineral, 25%
Resin ID	PP FR(17+61)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	1.5	cm³/10 min	ISO 1133
Density, (Method A)	1.41	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	24.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	2.5	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	2300	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	30	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	10	kJ/m²	ISO 179
Hardness			
Ball Pressure Test, (130 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	85.0	°C	ISO 306
(A (10N), 50 °C/h)	150	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	101	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	58.0	°C	ISO 75-2/A
RTI Elec			
(1.5 mm)	65.0	°C	UL 746B
(3.0 mm)	65.0	°C	UL 746B
(0.75 mm)	65.0	°C	UL 746B
(2.0 mm)	65.0	°C	UL 746B

RTI Imp			
(1.5 mm)	65.0	°C	UL 746B
(3.0 mm)	65.0	°C	UL 746B
(0.75 mm)	65.0	°C	UL 746B
(2.0 mm)	65.0	°C	UL 746B
RTI Str			
(1.5 mm)	65.0	°C	UL 746B
(3.0 mm)	65.0	°C	UL 746B
(0.75 mm)	65.0	°C	UL 746B
(2.0 mm)	65.0	°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			
(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)	800	°C	IEC 60695-2-13
(1.5 mm)	800	°C	IEC 60695-2-13
(3.0 mm)	800	°C	IEC 60695-2-13
Oxygen Index	35	%	ISO 4589-2
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
(3.0 mm)	5VB		UL 94
(0.75 mm)	V-0		UL 94
(2.0 mm)	5VB		UL 94
Flammability Classification			
(0.75 mm)	V-0		IEC 60695-11-10, -20
(1.5 mm)	V-0		IEC 60695-11-10, -20
(2.0 mm)	5VB		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	5VB		IEC 60695-11-10, -20
UL File Number	E86615		

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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 210	°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