Technical Data Sheet

Polyflam RPC 40400 GRY68290

Polycarbonate

Product Description

Flame retardant PC; halogen free according to DIN VDE 0472 part 815

Processing Method	Injection Molding
Attribute	Halogen Free
Additive	Flame Retardant

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	25	cm³/10 min	ISO 1133
Density, (Method A)	1.18	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	60.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	5.0	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	2400	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	60	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	20	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
Hardness			
Ball Pressure Test, (105 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	110	°C	ISO 306
(A (10N), 50 °C/h)	115	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	103	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	95.0	°C	ISO 75-2/A
RTI Elec			
(1.5 mm)	80.0	°C	UL 746B
(3.0 mm)	80.0	°C	UL 746B

RTI Imp			
(1.5 mm)	80.0	°C	UL 746B
(3.0 mm)	80.0	°C	UL 746B
RTI Str			
(1.5 mm)	80.0	°C	UL 746B
(3.0 mm)	80.0	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	225	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			
(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)	850	°C	IEC 60695-2-13
(3.0 mm)	775	°C	IEC 60695-2-13
Oxygen Index	33	%	ASTM D2863
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
(3.5 mm)	V-0		UL 94
(3.5 mm)	5VA		UL 94
UL File Number	E86615		

Injection Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Drying Temperature	100 to 120	°C
Suggested Max Moisture	0.02	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	260 to 270	°C
Injection Rate	Moderate-Fast	
Back Pressure	5.00 to 10.0	MPa
Mold Temperature	50 to 80	°C