Technical Data Sheet

Polyflam RMMK 125 BLK

Acrylonitrile Butadiene Styrene + PA

Product Description

Flame-retardant ABS/PA blend; without PBDE; high stress crack resistance

Processing Method	Injection Molding
Attribute	High ESCR (Environmental Stress Cracking Resistance)
Additive	Flame Retardant

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (250 °C/5.0 kg)	12	cm³/10 min	ISO 1133
Density, (Method A)	1.30	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	52.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	29.0	MPa	ISO 527-2
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	3.0	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	16	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	2500	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	940	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	12	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	9.0	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	21	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
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
(-30 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Hardness			
Ball Pressure Test, (125 °C)	Pass		IEC 60695-10-2
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	156	°C	ISO 306
(A (10N), 50 °C/h)	190	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	113	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0	°C	ISO 75-2/A
RTI Elec			
(1.5 mm)	60.0	°C	UL 746B
(3.0 mm)	60.0	°C	UL 746B
RTI Imp			
(1.5 mm)	60.0	°C	UL 746B
(3.0 mm)	60.0	°C	UL 746B
RTI Str			
(1.5 mm)	60.0	°C	UL 746B
(3.0 mm)	60.0	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	200	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
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			
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
Oxygen Index	31	%	ISO 4589-2
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
(2.0 mm)	5VA		UL 94
Flammability Classification			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(2.0 mm)	5VA		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		

Injection Parameters	Nominal Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	70 to 80	°C
Suggested Max Moisture	0.040 to 0.10	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	240 to 260	°C
Injection Rate	Slow-Moderate	
Back Pressure	5.00 to 10.0	MPa
Mold Temperature	40 to 80	°C