Technical Data Sheet

Polyflam RMMB 40400 WHI 81740

Polycarbonate + ABS

Product Description

Flame retardant ABS/PC blend for higher temperature resistance and impact strength; halogen free according to DIN VDE 0472 part 815

Processing Method	Injection Molding
Attribute	Good Impact Resistance; Good Processability; Halogen Free; Low Temperature Impact Resistance
Additive	Flame Retardant

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	28	cm³/10 min	ISO 1133
Density, (Method A)	1.18	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	63.0	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)	63	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	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
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)	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)	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
(3.5 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	800	°C	IEC 60695-2-13
(3.0 mm)	800	°C	IEC 60695-2-13
(3.5 mm)	800	°C	IEC 60695-2-13
Oxygen Index	33	%	ISO 4589-2
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
Flammability Classification			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
(3.5 mm)	5VA		IEC 60695-11-10, -20
(3.5 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80 to 100	°C
Suggested Max Moisture	0.02	%
Screw Speed	<300	mm/sec
Processing (Melt) Temp	260 to 270	°C
Injection Rate	Slow-Moderate	
Back Pressure	5.00 to 10.0	MPa
Mold Temperature	60 to 80	°C