

Technical Data Sheet

Polyflam RABS 90950 UV5 BUE45255

Acrylonitrile Butadiene Styrene

Product Description

20% glass fibre reinforced ABS grade without PBDE

Processing Method	Injection Molding
Attribute	Good Processability; High Strength; UV Resistant
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 20%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (220 °C/10.0 kg)	16	cm ³ /10 min	ISO 1133
Density, (Method A)	1.36	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	1.8	%	ISO 527-2
Tensile Stress at Break, (Type 1A, 5 mm/min)	75.0	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	6000	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	6.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	5.4	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	20	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	19	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (90 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	94.0	°C	ISO 306
(A (10N), 50 °C/h)	106	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	98.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	91.0	°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)	550	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
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)	725	°C	IEC 60695-2-13
(3.0 mm)	725	°C	IEC 60695-2-13
Oxygen Index	32	%	ISO 4589-2
Additional Information			
Water Absorption 23C/50RH	0.8	%	ISO 62
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
Flammability Classification			
(1.5 mm)	V-0		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	2.0 to 4.0	hr	
Drying Temperature	70 to 80	°C	
Screw Speed	<300	mm/sec	
Processing (Melt) Temp	220 to 240	°C	
Injection Rate	Slow-Moderate		
Back Pressure	5.00 to 10.0	MPa	
Mold Temperature	40 to 60	°C	