Technical Data Sheet

Polyman® E/HI-3438 SCHWARZBLK

Acrylonitrile Butadiene Styrene

Product Description
High impact ABS extrusion grade

Processing Method	Extrusion; Injection Molding
Attribute	High Impact Resistance
Resin ID	ABS

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (220 °C/10.0 kg)	9.0	cm³/10 min	ISO 1133
Density, (Method A)	1.03	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	40.0	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)	1500	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	34	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	19	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 Indentation Hardness, (H 358/30)	85.0	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	90.0	°C	ISO 306
(A (10N), 50 °C/h)	109	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	93.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	88.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			

Burning Rate			
(2.00 mm)	<100	mm/min	ISO 3795
(2.00 mm)	<100	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	650	°C	IEC 60695-2-12
(3.0 mm)	650	°C	IEC 60695-2-12
UL Information			
Flammability Classification, (1.5 mm)	HB		IEC 60695-11-10, -20

Extrusion Parameters	Nominal Value	Units
Drying Temperature	70 to 80	°C