Technical Data Sheet

Polyman ABS M/MI A 40 NAT

Acrylonitrile Butadiene Styrene

Product Description

High flow and medium impact ABS grade

Processing Method	Injection Molding
Attribute	High Flow; Medium Impact Resistance
Additive	Antistatic
Resin ID	ABS

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (220 °C/10.0 kg)	42	cm³/10 min	ISO 1133
Density, (Method A)	1.05	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	41.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	2.2	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	2500	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	15	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	9.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	85	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	67	kJ/m²	ISO 179
Hardness			
Ball Indentation Hardness, (H 358/30)	109	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	93.0	°C	ISO 306
(A (10N), 50 °C/h)	99.0	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	81.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	69.0	°C	ISO 75-2/A
Flammable			
Glow Wire Flammability Index			
(1.5 mm)	650	°C	IEC 60695-2-12
(3.0 mm)	650	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	675	°C	IEC 60695-2-13
(3.0 mm)	675	°C	IEC 60695-2-13
UL Information			
Flammability Classification			
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20
UL File Number	E86615		