

Technical Data Sheet

Polyman ABS HH NAT

Acrylonitrile Butadiene Styrene



Product Description

Heat resistant ABS grade

Processing Method Injection Molding

Resin ID ABS

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (220 °C/10.0 kg)	4.0	cm ³ /10 min	ISO 1133
Density, (Method A)	1.05	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	49.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	2.7	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	1900	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	12	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	7.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched, (23 °C, Type 1, Edgewise)	65	kJ/m ²	ISO 179
Hardness			
Ball Indentation Hardness, (H 358/30)	94.0	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature, (B (50N), 50 °C/h)	107	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	107	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	103	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	43	mm/min	FMVSS 302
(2.00 mm)	43	mm/min	ISO 3795
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
(3.0 mm)	HB	IEC 60695-11-10, - 20

Injection Parameters	Nominal	
	Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80	°C
Processing (Melt) Temp	230 to 260	°C
Mold Temperature	40 to 80	°C