

Technical Data Sheet

Polyman ABS M/TK K1458 WHI80390

Acrylonitrile Butadiene Styrene

Product Description

ABS Compound with increased heat distortion temperature. Suitable for food contact use.

Processing Method Injection Molding**Resin ID** ABS

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (220 °C/10.0 kg)	22	cm ³ /10 min	ISO 1133
Density, (Method A)	1.04	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	53.0	MPa	ISO 527-2
Flexural Modulus	3100	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 50 mm/min)	3.2	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	2800	MPa	ISO 527-1
Flexural Stress	88	MPa	ISO 178
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)	8.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	87	kJ/m ²	ISO 179
Hardness			
Ball Indentation Hardness, (H 358/30)	137	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	102	°C	ISO 306
(A (10N), 50 °C/h)	105	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	94.0	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	80.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+15	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	UL 746A
Surface Resistivity	>1.0E+13	ohm	IEC 60093

Flammable

Burning Rate			
(2.00 mm)	<100	mm/min	ISO 3795
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Glow Wire Ignition Temperature			
(1.5 mm)	700	°C	IEC 60695-2-13
(3.0 mm)	700	°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

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	80	°C
Processing (Melt) Temp	230 to 250	°C
Mold Temperature	40 to 80	°C