Technical Data Sheet

Polyman ABS M/TK K1458 GRY64702

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	cm³/10 min	ISO 1133
Density, (Method A)	1.04	g/cm³	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/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	8.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	87	kJ/m²	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
(2.00 mm)	<100	mm/min	FMVSS 302
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