Technical Data Sheet

POLYMAN® (ABS) M/HI-W

Acrylonitrile Butadiene Styrene
Engineering Plastics

Product Description	
high impact and heat resistant ABS grade	
General	
Automotive Specifications	• FORD WSK-M4D876-A1 Color: Natural
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• ABS

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm³	1.05 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	9.00 cm³/10min	9.00 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	319000 psi	2200 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	6530 psi	45.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	3.0 %	3.0 %	ISO 527-2/1A/50
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	5.2 ft·lb/in²	11 kJ/m²	
73°F (23°C)	9.0 ft·lb/in²	19 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	34 ft·lb/in²	71 kJ/m²	
73°F (23°C)	40 ft·lb/in²	85 kJ/m²	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 358/30)	13800 psi	95.0 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	214 °F	101 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	203 °F	95.0 °C	ISO 75-2/Af
Vicat Softening Temperature	210 °F	99.0 °C	ISO 306/B50
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	600 V	600 V	IEC 60112
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate			
0.0787 in (2.00 mm)	2.4 in/min	60 mm/min	ISO 3795
0.0787 in (2.00 mm)	2.4 in/min	60 mm/min	FMVSS 302
Flammability Classification			IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	HB	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1200 °F	650 °C	
0.12 in (3.0 mm)	1200 °F	650 °C	

Additional Information

1.) Not for use in food contact applications
2.) Not for use in medical or pharmaceutical applications