Technical Data Sheet

Polyman (ABS) M/MI-A 40

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

Product Description
High flow and medium impact ABS grade

General			
Features	• Antistatic	• High Flow	• Medium Impact Resistance
UL File Number	• E86615		
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)	42 cm³/10min	42 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	363000 psi	2500 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	5950 psi	41.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	2.2 %	2.2 %	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)	4.3 ft·lb/in²	9.0 kJ/m²	
73°f (23°c)	7.1 ft·lb/in²	15 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°f (-30°c)	32 ft·lb/in²	67 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)	15800 psi	109 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	178 °F	81.0 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	156 °F	69.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	199 °F	93.0 °C	ISO 306/B50
--	210 °F	99.0 °C	ISO 306/A50
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flammability Classification			IEC 60695-11-10, -20
0.06 In (1.5 Mm)	HB	HB	
0.12 In (3.0 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	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 In (1.5 Mm)	1250 °F	675 °C	
0.12 In (3.0 Mm)	1250 °F	675 °C	

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