

Technical Data Sheet

Polyman (ABS) HH

Acrylonitrile Butadiene Styrene

LyondellBasell Industries

Engineering Plastics

Product Description

Heat resistant ABS grade

General

Automotive Specifications • GM QK 002014 Color: Natural

Processing Method • Injection Molding

Resin ID (ISO 1043) • ABS

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (220°C/10.0 Kg)	4.0 cm ³ /10min	4.0 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	276000 psi	1900 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	7110 psi	49.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	2.7 %	2.7 %	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)	3.3 ft·lb/in ²	7.0 kJ/m ²	
73°F (23°C)	5.7 ft·lb/in ²	12 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
73°F (23°C)	31 ft·lb/in ²	65 kJ/m ²	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	13600 psi	94.0 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	225 °F	107 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	217 °F	103 °C	ISO 75-2/Af
Vicat Softening Temperature	225 °F	107 °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
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 In (2.00 Mm)	1.7 in/min	43 mm/min	ISO 3795
0.0787 In (2.00 Mm)	1.7 in/min	43 mm/min	FMVSS 302
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	

Additional Information

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

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Processing (Melt) Temp	446 to 500 °F	230 to 260 °C
Mold Temperature	104 to 176 °F	40 to 80 °C

Notes

These are typical property values not to be construed as specification limits.