

Technical Data Sheet



Polyman (ABS) HH 3 D

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

Product Description

Heat resistant ABS grade with high flow; also available as low emission grade; for automotive applications

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	
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)	12 cm ³ /10min	12 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	334000 psi	2300 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	7110 psi	49.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	2.8 %	2.8 %	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)	2.9 ft·lb/in ²	6.0 kJ/m ²	
73°F (23°C)	5.2 ft·lb/in ²	11 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	13 ft·lb/in ²	27 kJ/m ²	
73°F (23°C)	33 ft·lb/in ²	70 kJ/m ²	
Notched Izod Impact (73°F (23°C))	0.24 ft·lb/in	13 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	14500 psi	100 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	228 °F	109 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	219 °F	104 °C	ISO 75-2/ Af
Vicat Softening Temperature			
--	230 °F	110 °C	ISO 306/B50
--	241 °F	116 °C	ISO 306/A50
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)	2.8 in/min	71 mm/min	ISO 3795
0.0787 in (2.00 mm)	2.8 in/min	71 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	

Technical Data Sheet

**Polyman (ABS) HH 3 D**

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

Additional Information

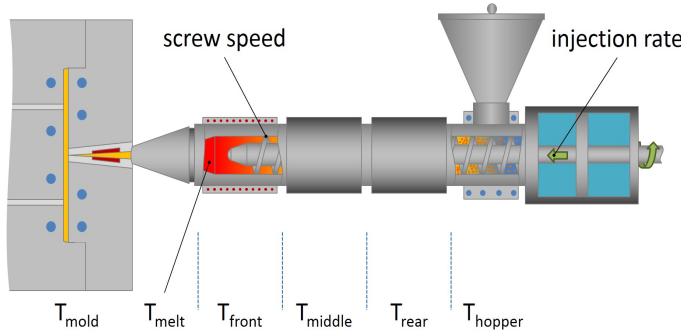
- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

Technical Data Sheet



Polyman (ABS) HH 3 D

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics



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 482 °F	230 to 250 °C
Mold Temperature	104 to 176 °F	40 to 80 °C

Notes

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

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

© LyondellBasell Industries Holdings, B.V. 2024

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.