

Technical Data Sheet

**Icorene 1613 BK85**

Linear Medium Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description

ICORENE® 1613 BK85 is a hexene linear medium density polyethylene specifically developed for use in rotational moulding.

This grade is designed for applications requiring good processability, stiffness and toughness. This product is particularly suitable for the production of diesel fuel tanks.

ICORENE® 1613 BK85 is TUV ECE R34 approved, protocolnr: 175XS0121-00.

ICORENE® 1613 BK85 is WRAS approved:1810500.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• Latin America
Additive	• UV Stabilizer		
Features	• Good Impact Resistance • Good Processability	• Good Stiffness • Good Toughness	• Hexene Comonomer • UV Resistant
Uses	• Fuel Tanks		
Appearance	• Black		
Forms	• Powder		
Processing Method	• Rotational Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.938 g/cm ³	0.938 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	4.5 g/10 min	4.5 g/10 min	ISO 1133
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
122°F (50°C), 10% Igepal, F50	> 250 hr	> 250 hr	
122°F (50°C), 100% Igepal, F50	> 1000 hr	> 1000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ISO 527-1
Yield, 73°F (23°C), Rotational Molded	2900 psi	20.0 MPa	
Tensile Elongation			ISO 527-1
Break, 73°F (23°C), Rotational Molded	> 600 %	> 600 %	
Flexural Modulus			ISO 178
73°F (23°C), Rotational Molded	109000 psi	750 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Drop Impact Resistance			
-40°F (-40°C)	> 4.72 in·lb/mil	> 210 J/cm	ARM
-4°F (-20°C) ¹	> 4.50 in·lb/mil	> 200 J/cm	Internal Method
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	62	62	ISO 868
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/B
66 psi (0.45 MPa), Unannealed	149 °F	65.0 °C	
Vicat Softening Temperature	243 °F	117 °C	ISO 306/A
Melting Temperature	261 °F	127 °C	ISO 11357-3

Notes

¹ Based on ISO 6603

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.

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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/>.

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