

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

Additive	• UV Stabilizer		
Features	• Good Impact Resistance	• Good Stiffness	• Hexene Comonomer
	• Good Processability	• Good Toughness	• 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) 122°F (50°C), 100% Igepal	> 1000 hr	> 1000 hr	ASTM D1693

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.