

Technical Data Sheet



Icorene 1614

Linear Medium Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description

ICORENE® 1614 is a hexene linear medium density polyethylene specifically developed for use in rotational molding.

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® 1614 is TUV ECE R34 approved, protocol no: 185XS0148-00.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• UV Stabilizer
Features	• Good ESCR (Stress Crack Resist.) • Good Processability • Good Stiffness • Good Toughness • UV Resistant
Uses	• Agricultural Tanks • Heavy Transportation • Lawn and Garden Equipment • Outdoor Applications
Appearance	• Black
Forms	• Powder
Processing Method	• Rotational Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.939 g/cm ³	0.939 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.5 g/10 min	3.5 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50°C), 10% Igepal, F50	60.0 hr	60.0 hr	
122°F (50°C), 100% Igepal, F50	> 1000 hr	> 1000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	2890 psi	19.9 MPa	ASTM D638
Tensile Elongation (Break)	240 %	240 %	ASTM D638
Flexural Modulus - 1% Secant	121000 psi	833 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Impact Strength			ARM
-40°F (-40°C), 0.125 in (3.18 mm), Rotational Molded	55 ft·lb	75 J	
-40°F (-40°C), 0.250 in (6.35 mm), Rotational Molded	> 190 ft·lb	> 258 J	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed ¹	140 °F	60.0 °C	
264 psi (1.8 MPa), Unannealed	102 °F	38.8 °C	
Peak Melting Temperature	259 °F	126 °C	ASTM D3418

Notes

¹ Rotational Molded

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

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- 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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