Technical Data Sheet

Icorene 1314

High Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description
ICORENE® 1314 is a high performance hexene high density polyethylene specifically developed for use in rotational moulding. This grade has been designed for applications requiring good stiffness and toughness. This material can be used in many different rotomoulding applications and for food contact applications. ICORENE® 1314 Black 9001 is TÜV approved, protocolnr 175XS0122-00. ICORENE® 1314 Natural and Black are DiBt approved Z40-25-519 and WRAS approved: 1507503 & 1202543

General			
Material Status	• Commercial: Active		
Availability	• Europe	• Latin America	
Additive	• UV Stabilizer		
Features	• Food Contact Acceptable • Good Impact Resistance • Good Stiffness	• Good Toughness • Hexene Comonomer • High ESCR (Stress Crack Resist.)	• UV Resistant
Uses	• Fuel Tanks • Industrial Tanks	• Septic Tanks • Tanks	
Appearance	• Black	• Natural Color	• Unspecified Color
Forms	• Powder		
Processing Method	• Rotational Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.939 g/cm³	0.939 g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0 g/10 min	3.0 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
122°F (50°C), 10% Igepal, F50	> 300 hr	> 300 hr	
122°F (50°C), 100% Igepal, F50	> 1000 hr	> 1000 hr	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [1] (Yield, 73°F (23°C))	2900 psi	20.0 MPa	ISO 527
Tensile Elongation (Break, 73°F (23°C))	> 1000 %	> 1000 %	ISO 527
Flexural Modulus (73°F (23°C))	116000 psi	800 MPa	ISO 178
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Drop Impact Resistance			
-40°F (-40°C), Rotomoulding	> 4.72 in·lb/mil	> 210 J/cm	ARM
-4°F (-20°C), Rotomoulding [2]	> 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	ASTM D2240
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ISO 75-2/B
66 psi (0.45 MPa), Unannealed	153 °F	67.0 °C	
Vicat Softening Temperature	243 °F	117 °C	ISO 306/A
Melting Temperature	261 °F	127 °C	ISO 11357-3

Notes

[1] Type I

[2] based on ISO 6603

Notes

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

Processing Techniques

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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/.

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