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

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/cm³	0.939 g/cm³	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.