

Technical Data Sheet

Icorene 3940

High Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description

ICORENE® 3940 is a high density polyethylene specifically developed for rotational moulding.

This grade is suitable for use in general purpose applications. It has a good balance of properties such as toughness and stiffness.

General

Additive	• UV Stabilizer		
Features	• Food Contact Acceptable • General Purpose	• Good Processability • Good Stiffness	• Good Toughness • UV Resistant
Uses	• Containers	• General Purpose	• Tanks
Appearance	• Natural Color	• Unspecified Color	
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)	4.0 g/10 min	4.0 g/10 min	ASTM D1238
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 ^{1, 2}			ISO 527-1
Yield, 73°F (23°C), 0.126 In (3.20 Mm)	2760 psi	19.0 MPa	
Break, 73°F (23°C), 0.126 In (3.20 Mm)	2900 psi	20.0 MPa	
Tensile Elongation ^{1, 2}			ISO 527-1
Break, 73°F (23°C), 0.126 In (3.20 Mm)	> 280 %	> 280 %	
Flexural Modulus	106000 psi	730 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Drop Impact Resistance ³ (-4°F (-20°C))	3.82 in·lb/mil	170 J/cm	Internal Method
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	60	60	ISO 868
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	244 °F	118 °C	ISO 306/A
Melting Temperature	262 °F	128 °C	DSC

Notes

¹ 2.0 in/min (50 mm/min)

² Test based on ISO 527/1B, Rotational molded

³ Based on ISO 6603

Notes

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