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/cm³	0.939 g/cm³	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)			ASTM D1693
122°f (50°c), 100% Igepal	> 1000 hr	> 1000 hr	
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.