

Technical Data Sheet

# Icorene 1505

Crosslinked Polyethylene  
LyondellBasell Industries  
Rotomolding

**Product Description**

ICORENE® 1505 is a crosslinkable natural high density polyethylene specifically developed for rotational moulding.

This grade is particularly suitable for use in applications requiring exceptional impact resistance at low temperature, toughness and excellent ESCR such as fuel tanks.

The specially developed cross linking system used has lower odor than typical materials of this type and allows for perfect moulding of the part - free of pinholes.

General			
Additive	• UV Stabilizer		
Features	• Crosslinkable • Good Processability	• High ESCR (Stress Crack Resist.) • High Impact Resistance	• Low Odor • UV Resistant
Uses	• Industrial Containers		
Appearance	• Natural Color	• Unspecified Color	
Forms	• Powder		
Processing Method	• Rotational Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.943 g/cm <sup>3</sup>	0.943 g/cm <sup>3</sup>	ASTM D1505
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
122°F (50°C), 10% Igepal, Rotational Molded, F50	> 1000 hr	> 1000 hr	
122°F (50°C), 100% Igepal, Rotational Molded, F50	> 1000 hr	> 1000 hr	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	3050 psi	21.0 MPa	ASTM D638
Tensile Elongation (Break)	600 %	600 %	ASTM D638
Flexural Modulus	102000 psi	700 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Drop Impact Resistance			
-40°F (-40°C), Rotomoulding	> 7.19 in·lb/mil	> 320 J/cm	ARM
-4°F (-20°C) <sup>1</sup>	> 5.73 in·lb/mil	> 255 J/cm	Internal Method

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	65	65	ASTM D2240

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/A
264 Psi (1.8 Mpa), Unannealed	109 °F	43.0 °C	
Vicat Softening Temperature	261 °F	127 °C	ISO 306/A50

**Notes**

<sup>1</sup> based on ISO 6603

**Notes**

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