

POLYMERS

SABIC[®] LLDPE

R40039E

Linear Low Density Polyethylene for Rotational Molding

PRODUCT DESCRIPTION:

SABIC[®] LLDPE R40039E is a Linear Low Density Polyethylene grade with elevated density and higher viscosity designed to provide excellent mechanical properties with high rigidity, toughness, good impact strength, low warpage as well as excellent internal and external surface finish. It is in pelletized form, UV-stabilized and has good stress cracking resistance which can be suitable for outdoor applications.

TYPICAL APPLICATIONS:

Rotational molding of large water tanks, large industrial and agricultural tanks and containers where good stiffness is required.

TYPICAL PROPERTY VALUES:

PROPERTIES	Unit	Value ⁽¹⁾	ASTM Method
Resin Properties			
Melt Flow Rate @ 190°C & 2.16 kg load	g/10 min.	3.5	D 1238
Density @ 23°C	kg/m ³	939	D 1505
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Strength @ Yield	MPa	18	D 638
Tensile Strength @ Break	MPa	19	D 638
Tensile Elongation @ Break	%	580	D 638
1% Secant Modulus	MPa	480	D 790
Flexural Strength	MPa	15	D 790
Hardness (Shore D)	-	69	D 2240
ESCR (100% Igepal), F ₅₀	hrs	>150	D 1693B
THERMAL PROPERTIES			
Vicat Softening Point	°C	119	D 1525
Brittleness Temperature	°C	< -75	D 746

(1) Typical values; not to be construed as specification limits

(2) Based on injection molded specimens

PROCESSING CONDITIONS

Typical processing conditions for SABIC[®] LLDPE R40039E are:

Oven temperature : 315°C (600°F)

Molding cycles vary with mold composition and its thickness, oven temperature and wall thickness of part being produced. Venting of the mold is recommended.

FOOD REGULATION

SABIC® LLDPE R40039E resins are suitable for Food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

STORAGE AND HANDLING

Polyethylene resin should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably do not exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

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