

# SABIC® LLDPE R40039E

LINEAR LOW DENSITY POLYETHYLENE

## DESCRIPTION

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

Revision 20240202

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES <sup>(1)</sup></b>			
<b>Melt Flow Rate (MFR)</b>			
at 190 °C and 2.16 kg	3.5	g/10 min	ASTM D1238
<b>Density</b>	939	kg/m <sup>3</sup>	ASTM D1505
<b>MECHANICAL PROPERTIES <sup>(2)</sup></b>			
<b>Tensile Properties</b>			
stress @ break	19	MPa	ASTM D638
strain @ break	580	%	ASTM D638
stress @ yield	18	MPa	ASTM D638
1% secant modulus	480	MPa	ASTM D638
<b>Flexural Strength</b>	15	MPa	ASTM D790
<b>Hardness Shore D</b>	69	-	ISO 868
<b>ESCR (100% Igepal), F50</b>	>150	Hrs	ASTM D1693B
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Temperature</b>	119	°C	ASTM D1525
<b>Brittleness Temperature</b>	<-75	°C	ASTM D746

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

(2) Based on injection molded specimens

## PROCESSING CONDITIONS

Typical processing conditions for R40039E are:

- Oven temperature: 315°C
- Molding cycles vary with mold composition and its thickness, oven temperature and well thickness of part being produced. Venting of the mold is recommended.

## 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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