

POLYMERS

SABIC[®] LLDPE R50035 Series

Linear Low Density Polyethylene for Rotational Molding & Compounding

PRODUCT DESCRIPTION:

SABIC[®] LLDPE R50035 series are Linear Low Density Polyethylene grades with balanced density and viscosity designed to provide excellent stress crack resistance, good mechanical properties with high rigidity and toughness with low warpage.

SABIC[®] LLDPE R50035 Series includes the following grades:

- R50035 : Non-UV stabilized in pellet form
- R50035E : AO and UV stabilized in pellet form
- RG50035: Non-UV stabilized reactor powder grade

TYPICAL APPLICATIONS:

Rotational molding of water tanks, industrial and agricultural tanks and containers, general purpose rotomolding articles where easy processing is required. RG50035 is typically suitable as carrier resin for producing compounds and masterbatches.

TYPICAL PROPERTY VALUES:

PROPERTIES	Unit	Value ⁽¹⁾	ASTM Method
Resin Properties			
Melt Flow Rate @ 190°C & 2.16 kg load	g/10 min.	5	D 1238
Density @ 23°C	kg/m ³	935	D 1505
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Strength @ Yield	MPa	16	D 638
Tensile Strength @ Break	MPa	17	D 638
Tensile Elongation @ Break	%	590	D 638
1% Secant Modulus	MPa	420	D 790
Flexural Strength	MPa	13	D 790
Hardness (Shore D)	-	66	D 2240
ESCR (100% Igepal), F ₅₀	hrs	>150	D 1693B
THERMAL PROPERTIES			
Vicat Softening Point	°C	114	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 R50035 and R50035E 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.

Processing temperature for extrusion machines for compounding : 200-240°C