

SABIC® LLDPE RG50035

LINEAR LOW DENSITY POLYETHYLENE FOR COMPOUNDING AND ROTATIONAL MOLDING

DESCRIPTION

RG50035 is a Linear Low Density Polyethylene grade with balanced density and viscosity designed to provide excellent stress cracking resistance, good mechanical properties with high rigidity, toughness, and low warpage. RG50035 is a 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	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES ⁽¹⁾			
Melt Flow Rate (MFR)			
at 190°C and 2.16 kg	5	g/10 min	ASTM D1238
Density	935	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES ⁽²⁾			
Tensile Properties			
stress at break	17	MPa	ASTM D638
strain at break	590	%	ASTM D638
stress at yield	16	MPa	ASTM D638
1% secant modulus	420	MPa	ASTM D638
Flexural Strength	13	MPa	ASTM D790
Hardness (Shore D)	66	-	ASTM D2240
ESCR (100% Igepal CO-630), F50	>150	h	ASTM D1693A
THERMAL PROPERTIES			
Vicat Softening Temperature	114	°C	ASTM D1525
Brittleness Temperature	<-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 R50035 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.

Processing temperature for compounding extruders: 200 - 240°C.