



R50035 Series

Linear Low Density Polyethylene for Rotational Molding

Product Description

R50035 series resins are Linear Low Density Polyethylene grades designed to provide excellent stress crack resistance, mechanical properties with high rigidity, toughness, gloss and low warpage.

R50035 Series includes following grades:

R50035: Non UV stabilized, Pellets
R50035E: UV stabilized, Pellets
RG50035: Non UV stabilized, Powder

Typical Applications

Rotational molding of large industrial and agricultural tanks, trash containers and chemical shipping drums. They are also suitable for injection molding applications like caps, closures and housewares. RG50035 is suitable for producing compounds & masterbatches.

Typical data

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 of R50035

Processing Conditions

Typical processing conditions for R50035 are:

Oven temperature: 315°C (600°F)

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

Processing temperature for injection molding machines: 210 - 240 °C

Food Regulation

R50035 series 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 material 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 don't 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.

Saudi Basic Industries Corporation, P.O.Box 5101, Riyadh 11422, Kingdom of Saudi Arabia
Tel: 966 1 2258000
Fax: 966 1 2259000

Technical Marketing
Tel: 966 1 2659166
Fax: 966 1 2653544
Toll-free 800 1245577

PE Sales:
Fax: 966 1 2258760
Website: www.sabic.com

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