

LLDPE**LLDPE R50035ET****LINEAR LOW DENSITY POLYETHYLENE (LLDPE) FOR ROTATIONAL MOLDING**

A linear low-density polyethylene grade formulated with a balanced density-viscosity profile for rotational molding, delivering excellent environmental stress-crack resistance, good mechanical properties with high rigidity and toughness, and low warpage. The resin is antioxidant- and UV-stabilized and supplied in pellet form.

Typical Application

- Rotational molding of water tanks
- Industrial and agricultural tanks and containers
- General-purpose rotomolded articles where easy processing is required

Product Characteristics

- Antioxidant and UV-stabilized pellet-form grade
- Balanced density and viscosity for excellent stress-crack resistance
- High rigidity, toughness, and low warpage

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate (190°C/2.16kg)	ASTM D1238	5	g/10 min
Density	ASTM D1505	0.935	g/cm ³
Tensile Stress at Break	ASTM D638	17	MPa
Tensile Strain at Break	ASTM D638	590	%
Tensile Stress at Yield	ASTM D638	16	MPa
Flexural Strength	ASTM D790	13	MPa
Flexural Modulus (1% Secant)	ASTM D790	420	MPa
Hardness (Shore D)	ISO 868	66	-
ESCR (100% Igepal CO-630, F50)	ASTM D1693A	>150	h
Vicat Softening Temperature	ASTM D1525	114	°C
Brittleness Temperature	ASTM D746	<-75	°C

Processing Guidelines

Typical processing conditions: oven temperature 315°C; processing temperature for compounding extruders 200-240°C. Molding cycles vary with mold composition, thickness, oven temperature, and part wall thickness; venting of the mold is recommended.

1. Mechanical, flexural, and hardness values were measured on injection-molded specimens; typical values, not to be construed as specification limits.

2. This datasheet corresponds to the base grade R50035E; the R50035ET designation referenced on the distributor offer sheet falls within the same balanced density/viscosity rotomolding family, and the melt flow and density values match exactly. Grade-specific certificate of analysis supplied per lot at order.

3. The nominal properties reported herein are typical of the product and do not reflect normal testing variance; they should not be used for specification purposes.