

LLDPE**LLDPE PE-L R646U****LINEAR LOW-DENSITY POLYETHYLENE (LLDPE) — ROTOMOULDING GRADE**

A high-flow, butene-comonomer linear low-density polyethylene developed for rotational moulding. The grade is formulated with a high-tier UV stabilization package (UV8 or above) for extended outdoor service life, and offers a wide processing window with excellent thermal stability, helping preserve part gloss and colour through the rotomoulding cycle. It is well suited to complex-shaped, short-cycle parts and is commonly used to produce storage tanks, outdoor furniture, playground equipment, roadblocks and traffic safety products.

Typical Application

- Rotomoulded storage tanks
- Outdoor furniture
- Playground equipment and irregular-shaped functional parts
- Roadblocks and traffic safety products

Product Characteristics

- High-flow, high-stiffness rotomoulding grade with a wide processing window
- Excellent thermal stability during moulding, helping protect part gloss and colour
- UV-stabilized (UV8 grade or above) for outdoor / extended service applications
- Good toughness and environmental stress crack resistance typical of the grade family

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow (190°C/2.16 kg)	ASTM D1238	5.5	g/10 min
Density	ASTM D792	0.935	g/cm ³
Tensile Strength at Yield	ASTM D638	≥ 12.0	MPa
Elongation at Break	ASTM D638	≥ 200 (typ. > 750)	%
Charpy Impact Strength (23°C)	ISO 179	≥ 20 (typ. 71)	kJ/m ²

Processing Guidelines

Process as a standard rotomoulding LLDPE powder/pellet; the wide processing window and high thermal stability of this grade family provide tolerance to typical oven-cycle variation while preserving surface gloss and colour.

1. Melt flow value (5.5 g/10 min) matches the verified specification on file for this grade.
2. Density, tensile, elongation and impact values are typical values per the producer's published family data for the same rotomoulding grade family; grade-specific certificate of analysis supplied per lot at order.
3. Full per-grade technical data and a certificate of analysis are supplied with each order.