

Provisional Technical Datasheet

R0536L Polysure LLDPE

Roto Molding

Product Characteristics:

Polysure R0536L is a 1-butene comonomer based Linear Low Density Polyethylene, produced by Gas Phase – UNIPOL™ PE technology and primarily suitable for Roto molding process. R0536L offers low sintering time, good ESCR and very good stiffness-impact balance. It is recommended to incorporate optimum level of Carbon black or long-term UV stabilizer during processing of R0536L for withstanding continuous outdoor exposure.

Recommended Applications:

Water Storage Tank, Loft Tank, Waste Bin, Slides, Toys, Furniture, Chemical Tank, Tank for Agriculture, Roadblock, Multilayer Foam Tank, Milk Can, Septic Tank, Boats, Vending Machine

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value
1	Melt Flow Index (190°C & 2.16 kg)	ASTM D1238	g/10 min	5.0
2	Density (23°C)	ASTM D1505	g/cc	0.936
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	18
4	Tensile Strength at Break, Type IV Specimen		MPa	24
5	Tensile Elongation at Break, Type IV Specimen		%	650
6	Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	500
7	Flexural Modulus (1% Secant)	ASTM D790A	MPa	520
8	Vicat Softening Point (10N)	ASTM D1525	°C	115
9	Hardness	ASTM D2240	Shore D	55
10	ESCR (F50), 10% Igepal	ASTM D1693B	Hours	>350

**All the mechanical properties are tested on injection molded Test Specimen, prepared in accordance with ASTM D4101*

Processing Guidelines:

- Processing Temperature : 220 - 280°C

Storage & Handling:

Bags should be stored in dry & dust free environment at temperature below 50°C and Prevent from direct exposure to sunlight & heat to avoid quality deterioration.

Regulatory Requirements:

R0536L to be manufactured complying the requirements specified in IS 10146 on “Specification for Polyethylene for its safe in contact with Foodstuff, Pharmaceutical & Drinking water”. Furthermore, the Additives added in this grade formulation compiles to the “Positive list of constituents for Polypropylene, Polyethylene and their Copolymers for its safe use in contact with Foodstuffs & Pharmaceuticals’ as laid down under IS 16738:2018. In general, the additives & constituents used in the grade are in line with requirement laid down under FDA: CFR Title 21,177.1520, Olefin Polymers.

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