## Provisional Technical Datasheet

# M2024L Polysure LLDPE — Injection Molding

**Product Characteristics:**
Polysure M2024L is a 1-butene comonomer based Linear Low Density Polyethylene, produced by Gas Phase – UNIPOL™ PE technology, suitable for Injection Molding & Compounding processes. M2024L offers low warpage, superior dimensional stability for injection molded products & excellent filler dispersibility for masterbatches.

**Recommended Applications:**
Injection molded Shopping baskets, Lids, Containers, TWIM, Houseware Items, Masterbatches

**Typical Properties:**

| Sr. No. | Property | Test Method | Unit | Value |
|---|---|---|---|---|
| 1 | Melt Flow Index (190°C & 2.16 kg) | ASTM D1238 | g/10 min | 20.0 |
| 2 | Density (23°C) | ASTM D1505 | g/cc | 0.924 |
| 3 | Tensile Strength at Yield, Type IV Specimen | ASTM D638 (50 mm / min) | MPa | 12 |
| 4 | Tensile Strength at Break, Type IV Specimen | | MPa | 8 |
| 5 | Tensile Elongation at Break, Type IV Specimen | | % | 300 |
| 6 | Notched Izod Impact Strength (23°C) | ASTM D256A | J/m | 500 |
| 7 | Flexural Modulus (1% Secant) | ASTM D790A | MPa | 400 |
| 8 | Vicat Softening Point (10N) | ASTM D1525 | °C | 94 |

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

**Processing Guidelines:**

- Processing Temperature : 180 - 220°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:**
M2024L 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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