

## Provisional Technical Datasheet

# B0148D Polysure HDPE

## Medium Blow Molding

### Product Characteristics:

Polysure B0148D is a 1-Hexene co-monomer based high molecular weight High Density Polyethylene, produced by Advanced Dual Loop Slurry MarTECH™ technology, suitable for Blow Molding process. B0148D offers smooth processability, very good melt strength, high ESCR, excellent die swell properties, low temperature impact strength & very good stackability.

### Recommended Applications:

Medium to large bulk containers (up to 120 liter) for Chemicals, Detergent, Lube Oils; Jerry Cans; Shipping Containers; Fuel Container, Agricultural Chemical Tanks; Blow Molded water tanks. The grade can also be used for typical thermoformed applications to make Industrial Pallets, Automotive dunnage, Truck bed liners, Playground equipment.

### Typical Properties:

| Sr. No. | Property                                      | Test Method                | Unit     | Value*   |
|---------|---|----------------------------|----------|----------|
| 1       | Melt Flow Index (190°C & 5 kg)                | ASTM D1238                 | g/10 min | 0.36     |
| 2       | Melt Flow Index (190°C & 21.6 kg)             |                            | g/10 min | 10       |
| 3       | Density (23°C)                                | ASTM D1505                 | g/cc     | 0.948    |
| 4       | Tensile Strength at Yield, Type IV Specimen   | ASTM D638<br>(50 mm / min) | MPa      | 25       |
| 5       | Tensile Elongation at Break, Type IV Specimen |                            | %        | 700      |
| 6       | Flexural Modulus (1% Secant)                  | ASTM D790A                 | MPa      | 900      |
| 7       | Notched Izod Impact Strength (23°C)           | ASTM D256A                 | J/m      | No Break |
| 8       | Vicat Softening Point (10N)                   | ASTM D1525                 | °C       | 126      |
| 9       | Heat Deflection Temperature (0.455 MPa)       | ASTM D648                  | °C       | 78       |
| 10      | Hardness                                      | ASTM D2240                 | Shore D  | 68       |
| 11      | ESCR (F50), 100% Igepal                       | ASTM D1693B                | Hour     | >600     |

\* All the mechanical properties are determined on Compression Molded Test Specimen, prepared in accordance with ASTM D4703

### Processing Guidelines:

- Barrel Temperature : 180 - 210°C
- Die Temperature : 160 - 200°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:

B0148D 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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