

## High Density Polyethylene

## Injection Molding

### Product Description:

180M50 is a High Density Polyethylene manufactured using Nova Chemical's Sclairtech Solution Polymerization Technology. 180M50 is a natural colored polymer with excellent flow properties, very good processability and excellent gloss.

### Recommended Applications:

HDPE 180M50 is designed to suite the following application areas:

- Injection molded housewares
- Thin wall molded products.

### Typical Properties:

Tested Properties	Test Method	UOM	Values*
<b>Resin Properties</b>			
Melt Flow Index (190°C & 2.16 Kg)	ASTM D 1238	gm/10 min	20
Density @ 23°C	ASTM D 1505	gm/cm <sup>3</sup>	0.950
<b>Mechanical Properties</b>			
Tensile Yield Strength	ASTM D 638	MPa	22
Elongation at Yield	ASTM D 638	%	12
Flexural Modulus	ASTM D 790	MPa	750
Hardness	ASTM D 2240	Shore D	55
<b>Thermal Properties</b>			
Vicat Softening Point (10 N)	ASTM D 1525	°C	124

\* Typical values not to be construed as specification limits. Values may change without any prior notice.

\* Mechanical properties tested on injection molded specimen.

**Recommended Processing Temperature:** 180 – 210 °C

### Packaging Information:

This material is packed and available in raffia bags with net content of 25.0 Kg only. The raffia bags used conforms to the minimum strength requirements of BIS, however, customer shall take due care while handling the bag. Prolonged exposure of these bags to sunlight may deteriorate the bag's performance and cause spillage and wastage. IOCL does not warranty loss of material due to poor material handling practices.

### Regulatory Information:

HDPE 180M50 shall meet "Specification for Polyethylene for safe use in contact with Foodstuff, Pharmaceuticals and Drinking water" as per IS: 10146-1982. It also confirms to the positive list of constituents as per IS: 10141-1982. The grade and Additives incorporated shall meet with FDA: CFR Title 21, 177.1520, Olefin Polymers.

### Storage & Handling:

Prevent HDPE Material from direct exposure to sunlight & heat to avoid quality deterioration. The storage location should be dry, dust free and the Storage temperature should not exceed 50 °C. Non - compliance to these precautionary measures can lead to degradation of the product causing Color changes, Odor & inadequate product performance. It is advised to process HDPE material within 06 months after delivery.

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