

## High Density Polyethylene

## Injection Moulding

### Product Description:

**HDPE 080M55** is a high density polyethylene manufactured using Nova Chemicals' Sclairtech Solution Polymerization Technology. It is a natural coloured polymer with good processability, very good mechanical properties and good dimensional stability.

**BIS Designation Code** for HDPE 080M55 as per IS 7328:2020 is: **IS 7328-3B-MBQ-FDD**.

### Recommended Applications:

**HDPE 080M55** is recommended for manufacturing injection moulded components like:

- Caps & Closures
- Industrial Products

### Typical Properties:

Tested Properties	Test Method	UOM	Values*
<b>Resin Properties</b>			
Melt Flow Index (190°C & 2.16Kg)	ASTM D1238	g/10min	8.0
Density @ 23°C	ASTM D792	g/cm <sup>3</sup>	0.955
<b>Mechanical Properties</b>			
Tensile Strength @ Yield (Type-IV)	ASTM D638	MPa	25
Elongation @ Yield (Type-IV)	ASTM D638	%	11
Elongation @ Break (Type-IV)	ASTM D638	%	>800
Flexural Modulus	ASTM D790	MPa	850
Notched Izod Impact Strength @ 23°C	ASTM D256	J/m	80
Hardness	ASTM D2240	ShoreD	60
<b>Thermal Properties</b>			
Vicat Softening Point	ASTM D1525	°C	125

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

\* Mechanical Properties tested on Injection Moulded test specimens.

**Recommended Processing Temperature: 180 – 215°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.

### 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 colour changes, odor and inadequate product performance. It is advised to process HDPE material within 06 months of delivery.

### Regulatory Information:

HDPE 080M55 meets the "Specification for Polyethylene for safe use in contact with Foodstuff, Pharmaceuticals and Drinking water" as per IS: 10146-1982. It also conforms to the positive list of constituents as per IS: 16738-2018. The grade and Additives incorporated shall meet with FDA: CFR Title21, 177.1520, Olefin Polymers.

### Disclaimer:

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