

# M5220



## High Density Polyethylene

## Injection Molding

### Product Description:

HDPE M5220 is a natural colored grade produced with the latest Ineos Gas Phase polymerization

Technology exhibiting following features:

- ✓ Good Flow
- ✓ High Warpage Resistance
- ✓ Suitable for faster molding cycles

HDPE M5220 is recommended for following applications:

- ✓ Housewares, storage bins
- ✓ Thin wall food containers
- ✓ Caps & Closures
- ✓ Base resin for masterbatch

### Typical Properties:

| Sr. No.  | Properties                              | Test Method | Units              | Values* |
|--|---|-------------|--------------------|---------|
| <b>Physical Properties</b>   |   |             |                    |         |
| 1  | Melt Flow Index ( 190°C & 2.16 kg)      | ASTM D1238  | g / 10 min         | 21      |
| 2  | Density (at 23 °C)                      | ASTM D1505  | gm/cm <sup>3</sup> | 0.952   |
| <b>Mechanical Properties</b>   |   |             |                    |         |
| 3  | Tensile Strength @ Yield (50mm / min)   | ASTM D638   | MPa                | 22.0    |
| 4  | Elongation @ Break (50mm / min)         | ASTM D638   | %                  | 350     |
| 5  | Flexural Modulus                        | ASTM D790   | Mpa                | 900     |
| 6  | Izod Impact Strength (at 23 °C)         | ASTM D256   | J/m                | 30      |
| 7  | Hardness                                | ASTM D2240  | Shore D            | 62      |
| <b>Thermal Properties</b>  |   |             |                    |         |
| 8  | Vicat Softening Point (10N)             | ASTM D1525  | °C                 | 125     |
| 9  | Heat Deflection Temperature (0.455 MPa) | ASTM D648   | °C                 | 80      |
| ** Mechanical Properties tested on Injection molded specimen in accordance with ASTM D4101 and conditioned as per ASTM D618. |   |             |                    |         |
| * Typical Values and not to be taken as specification limits, values may change without any prior notice.                    |   |             |                    |         |

Recommended Processing Temperature: 190 – 230 °C

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## Provisional Technical Datasheet

# M5220



### **Regulatory Requirements:**

HDPE grade M5220 shall meet the requirements stipulated in IS 10146:1982 on 'Specification of Polyethylene for safe use in contact with Foodstuff, Pharmaceutical & Drinking water'. The grade and Additives incorporated in this grade shall meet the positive list of constituents as prescribed in IS 10141:1982. The Grade and the additives incorporated in it shall also comply with the FDA: CFR Title 21,177.1520, Olefin Polymers.

### **Storage & Handling:**

Prevent Polyethylene 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.

### **Health and Safety Information:**

The product described herein may require precautions in handling and use because of toxicity, flammability, or other consideration. The Material Safety Data Sheet (MSDS) contains the available product health and safety information for this material and can be found at [www.opalindia.in](http://www.opalindia.in). Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.



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