

# HD2401C

High Density Polyethylene Resin

**Special Characteristics** : InnoPlus HD2401C is high density polyethylene with very narrow molecular weight distribution (MWD). They can be processed in either injection or compression molding and provides easy processing characteristics. Moreover, this grade tailor with high stiffness, good tensile strength and exhibits superior organoleptic properties which prevent unpleasant odor and taste from cap or closure to transfer to water.

**Typical Applications** : Beverage caps for drinking and mineral water.

**Typical Properties** :

| Properties                                       | HD2401C | Unit               | Test Method |
|--|---------|--------------------|-------------|
| <i><u>Physical Properties</u></i>                |         |                    |             |
| Melt Flow Rate (190°C, 2.16 kg)                  | 7       | g/10 min           | ASTM D1238  |
| Density  | 0.964   | g/cm <sup>3</sup>  | ASTM D1505  |
| Vicat Softening Point @ 10 N, 50 °C/hr           | 127.5   | °C                 | ASTM D1525  |
| Melting Point                                    | 136     | °C                 | ASTM D3418  |
| <i><u>Mechanical Properties</u></i>              |         |                    |             |
| Tensile Strength @ Yield                         | 310     | kg/cm <sup>2</sup> | ASTM D638   |
| Tensile Strength @ Break                         | 175     | kg/cm <sup>2</sup> | ASTM D638   |
| Elongation @ Break                               | 750     | %                  | ASTM D638   |
| Stiffness  | 11000   | kg/cm <sup>2</sup> | ASTM D747   |
| Flexural Modulus                                 | 15000   | kg/cm <sup>2</sup> | ASTM D790   |
| Notched Izod Impact Strength                     | 4 (C)*  | kg.cm/cm           | ASTM D256   |
| Durometer Hardness                               | 65      | Shore D            | ASTM D2240  |
| ESCR, F <sub>50</sub> (Condition B, 10 % Igepal) | 5       | hrs                | ASTM D1693  |

\* C = Complete Break

**Processing Condition** :

Injection Molding Process— Extrusion Temperature : 170 - 200 °C

Compression Molding process— Extrusion Temperature 140 - 165 °C

*Note* : Properties reported here are typical values of the product, not to be considered as specifications.

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## FDA Statement :

HDPE under the brand InnoPlus complies with U.S. FDA 21 CFR 177.1520 (c) (2.1) and (2.2) regulation for polyethylene used in articles that contact food suitable for articles used for packaging or holding food during cooking.

## Disclaimer :

This Applications specified herein is for reference only and not suitable for using in the manufacturing of any products in medical and pharmaceutical sectors.

- Determination of suitability of the product for the use and purpose shall be the customer's responsibility. Customer is obligated to inspect and test the product for such suitability. Customer is responsible for appropriate, safe, legal use processing and handling of the product.
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