

# HD8100M

High Density Polyethylene Resin

**Special Characteristics :** InnoPlus HD8100M is a natural color-high density polyethylene pipe grade which is certified as a MRS 10.0 (PE100). InnoPlus HD8100M is produced from bimodal polymerization, Mitsui technology which provides excellent mechanical strength, high thermal stability and chemical resistance properties. This grade can mix with color masterbatch and apply for color pipe.

**Typical Applications :** Drinking water pipes, Industrial pipes, Sewer pipes and conduit pipe for wire & cable protection.

**Typical Properties :**

| Properties   | HD8100M      | Unit               | Test Method        |
|--|--------------|--------------------|--------------------|
| <b>Physical Properties</b>                                     |              |                    |                    |
| Melt Flow Rate (190 °C, 5 kg)                                  | 0.25         | g/10 min           | ISO 1133           |
| Density  | 0.952        | g/cm <sup>3</sup>  | ISO 1183           |
| Vicat softening point  | 124          | °C                 | ASTM D1525         |
| <b>Mechanical Properties (Based on com-pression specimens)</b> |              |                    |                    |
| Tensile Strength at Yield                                      | 24           | MPa                | ISO 527            |
| Tensile Strength at Break                                      | 35           | MPa                | ISO 527            |
| Elongation at Break  | 750          | %                  | ISO 527            |
| Flexural Modulus   | 10,000       | kg/cm <sup>2</sup> | ASTM D790          |
| Notched Izod Impact Strength                                   | 48 (NB)*     | kg.cm/cm           | ASTM D256          |
| Durometer Hardness   | 64           | Shore D            | ASTM D2240         |
| ESCR, F <sub>50</sub> (Condition B, 25 % Igepal)               | >1000        | hrs                | ASTM D1693         |
| <b>Other Properties</b>  |              |                    |                    |
| Oxidative Induction Time (OIT, 200 °C)                         | >40          | min.               | ISO 11357-6        |
| MRS Classification   | 10.0 (PE100) | MPa                | ISO12162/ ISO 9080 |

\* NB = Non Break

**Recommendation :**

Extrusion temperature : 180 - 200 °C

Die temperature : 190 - 220 °C

**FDA Statement :**

Food and Drug Administration US FDA 21 CFR 177.1520 and Commission Regulation (EU) 10/2011. More compliance regulations and standards that related to the product shall be exhibited in Product Regulatory Certificate (PRC) document.