

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

Typical Properties :

Properties	Typical Value	Unit	Test Method
<i>Physical Properties</i>			
Melt Flow Rate (190 °C, 5 kg)	0.25	g/10 min	ISO 1133
Density	0.952	g/cm ³	ISO 1183
Vicat Softening Point @ 10 N, 50 °C/hr	124	°C	ASTM D1525
Melting Point	133	°C	ASTM D3418
<i>Mechanical Properties (Based on compression specimens)</i>			
Tensile Strength @ Yield	25	MPa	ISO 527
Tensile strength @ Break	33	MPa	ISO 527
Elongation @ Break	750	%	ISO 527
Stiffness	7500	kg/cm ²	ASTM D747
Flexural Modulus	10000	kg/cm ²	ASTM D790
Notched Izod Impact Strength	48 (NB)*	kg.cm/cm	ASTM D256
Durometer Hardness	64	Shore D	ASTM D2240
ESCR, F ₅₀ (Condition B, 25 % Igepal)	>1000	Hours	ASTM D1693
<i>Other Properties</i>			
Oxidative Induction Time (OIT, 200 °C)	>40	min.	ISO 11357-6
MRS Classification	10.0 (PE100)	MPa	ISO12162/ ISO 9080

* NB = Non Break

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Recommendation :

Extruder temperature : 180 - 200 °C
Die temperature : 190 - 220 °C

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 drinking water pipes.

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

PTT Global Chemical makes no representations as to the accuracy or completeness of the information contained herein.

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