

# HD8100MB

High Density Polyethylene Black Compound Resin

**Special Characteristics :** PlastMate HD8100MB is a high density polyethylene black pipe compound grade which is certified as a MRS 10.0 (PE100). It is bimodal resins exhibit excellent processability, high thermal stability, good dispersion of carbon black and good chemical resistance properties. They are suitable for high quality pressure pipes, produced by conventional pipe extrusion process.

**Typical Applications :** Pressure pipes , Drinking water pipes, Industrial pipes and Sewer pipes.

**Typical Properties :**

Properties	HD8100MB	Unit	Test Method
<b>Physical and Mechanical Properties</b>			
Melt Flow Rate (190 °C, 5 kg)	0.25	g/10 min	ISO 1133
Density	0.960	g/cm <sup>3</sup>	ISO 1183
Tensile Strength at Yield	23	MPa	ISO 527
Tensile strength at Break	> 30	MPa	ISO 527
Elongation at Break	> 600	%	ISO 527
Stiffness	8,000	kg/cm <sup>2</sup>	ASTM D747
Flexural Modulus	10,500	kg/cm <sup>2</sup>	ASTM D790
Carbon Black Content	2.25	% wt	ISO 6964
Carbon Black dispersion	< 3	-	ISO 18553
Notched Izod Impact Strength	50 (NB)*	kg.cm/cm	ASTM D256
Durometer Hardness	64	Shore D	ASTM D2240
ESCR , F <sub>50</sub> (Condition B, 25 % Igepal)	>2,000	Hours	ASTM D1693
Oxidative Induction Time (OIT, 210 °C)	> 40	Minutes	ISO 11357-6
MRS Classification	10.0 (PE100)	MPa	ISO12162/ ISO 9080
Resistance to crack growth (@ 80 °C)	> 500	Hour	ISO 13479
Rapid crack propagation, Pc, S4	> 10**	Bar	ISO 13477

### Recommendation

Preheat condition : 2 hours at 80 °C

Extruder temperature : 180 - 200 °C

Die temperature : 190 - 210 °C

\* NB = Non Break

\*\* Tested on 110 mm OD pipe

### 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.

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

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