

# HD8181MB

High Density Polyethylene Black Compound Resin

## Special Characteristics

PlastMate HD8181MB is a high density polyethylene black pipe compound grade which is produced from bimodal polymerization, Mitsui Technology. It has good mechanical properties and chemical resistance properties. This grade is not certified with MRS classification. It is suitable for non-pressure pipe applications.

**Typical Application :** Non-pressure pipes such as Conduit pipe, Corrugate pipe and Sewer pipes.

## Typical Properties :

Properties	Typical Value	Unit	Test Method
<u>Physical Properties</u>			
Melt Flow Rate (190 °C, 5 kg)	0.30	g/10 min	ISO 1133
Density	0.960	g/cm <sup>3</sup>	ISO 1183
Melting point	132	°C)	ASTM3418
<u>Mechanical Properties (Based on compression specimens)</u>			
Tensile Strength @ Yield	22	MPa	ISO 527
Tensile strength @ Break	30	MPa	ISO 527
Elongation @ Break	>500	%	ISO 527
Stiffness	8000	kg/cm <sup>2</sup>	ASTM D747
Flexural Modulus	10500	kg/cm <sup>2</sup>	ASTM D790
Carbon Black Content	2.25	% wt	ISO 6964
Carbon Black dispersion	< 7	-	ISO 18553
Durometer Hardness	64	Shore D	ASTM D2240
ESCR , F <sub>50</sub> (Condition B, 25 % Igepal)	>2000	Hours	ASTM D1693
Oxidative Induction Time (OIT, 210 °C)	>40	Minutes	ISO 11357-6

\* NB = Non Break

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## Recommendation Processing Condition:

Preheat condition : 2 hours at 80 °C  
Extruder temperature : 180 - 200 °C  
Die temperature : 190 - 210 °C

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

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