

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 Application : Pressure pipes , Drinking water pipes, Industrial pipes and Sewer pipes.

Typical Properties :

Properties	Typical Value	Unit	Test Method
<i>Physical and Mechanical Properties</i>			
Melt Flow Rate (190 °C, 5 kg)	0.25	g/10 min	ISO 1133
Density	0.960	g/cm ³	ISO 1183
Tensile Strength @ Yield	23	MPa	ISO 527
Tensile strength @ Break	> 30	MPa	ISO 527
Elongation @ Break	> 600	%	ISO 527
Stiffness	8000	kg/cm ²	ASTM D747
Flexural Modulus	10500	kg/cm ²	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 ₅₀ (Condition B, 25 % Igepal)	>2000	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

* NB = Non Break

** Tested on 110 mm OD pipe

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Recommendation :

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

FDA Statement :

HDPE black compound under the brand Plastmate 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.

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