# Moharamplast HDPE MP6004-100

## High Density Polyethylene

#### Moharamplast S.A.E

#### Message:

A black high density polyethylene (HDPE) compound classified as PE100. It contains >2.2% well dispersed carbon black class A1 to ensure outstanding weather resistance, provides high tensile strength with high resistance against fast and slow crack propagation. The added carbon black type is less sensitive to moisture despite the hygroscopic behavior due to its fine particle size. It also shows a very high impact resistance throughout its entire temperature range combined with an acute resistance to fracture which is a significant advantage in applications where temperature is very low so it can be used at temperatures ranging from -50°C to 60°C.

Safety

MP6004-100 is classified as no-dangerous material.

We advise you to follow our safety guidelines and recommendations in our Material Safety Data Sheet.

Typical Applications

MP6004-100 is manufactured from high density polyethylene (HDPE) resin meeting the requirements of ASTM D3035, it fulfills the requirements of ASTM D2837 for hydrostatic design basis. MP6004-100 is recommended for pipe systems in the applications field of drinking water pressure pipes, mining pipe, industrial pipes, sewage pipes and corrugated pipes.

General Information	
Features	Good Crack Resistance
	Good Weather Resistance
	High Density
	High Impact Resistance
	High Tensile Strength
Uses	Corrugated Pipe
	Industrial Applications
	Mining Applications
	Piping
Agency Ratings	ISO PE 100
Appearance	Black
Forms	Pellets
Processing Method	Extrusion
	Pipe Extrusion

Physical	Nominal Value	Unit	Test Method		
Specific Gravity <sup>1</sup>	0.960	g/cm³	ASTM D792		
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.40	g/10 min	ASTM D1238		
Environmental Stress-Cracking Resistance					
(10% Igepal, F50)	> 5000	hr	ASTM D1693		
Carbon Black Content	> 2.2	%	ASTM D1603		
Carbon Black Dispersion	A1		ISO 18553		
Oxidation Induction Time (200°C)	> 70	min	ASTM D3895		
Head Temperature	200 to 210	°C			

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	62		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield	24.0	MPa	
Break	28.0	MPa	
Tensile Elongation (Break)	> 700	%	ASTM D638
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	17	kJ/m²	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	> 115	°C	ASTM D1525
Melting Temperature	> 120	°C	ASTM D2117
Extrusion	Nominal Value	Unit	
Drying Temperature	< 90.0	°C	
Cylinder Zone 1 Temp.	190 to 210	°C	
Cylinder Zone 3 Temp.	190 to 210	°C	
Cylinder Zone 5 Temp.	190 to 210	°C	
Melt Temperature	200 to 220	°C	
Die Temperature	200 to 210	°C	
NOTE			
1.	23°C		

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## Recommended distributors for this material

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