

# HM 0359 PE

Technical Data Sheet  
Polyethylene, High Density, Black Compound



## Product Description

HM 0359 PE is a black (with carbon black) high density polyethylene copolymer (with 1-Hexene) designed for the extrusion of pressure pipes.

HM 0359 PE is characterized by outstanding environmental stress crack resistance, high stiffness, high impact strength and good processability.

## Product Characteristics

Application	Pressure Pipes
Processing Method	Extrusion
Market	Pressure Pipes. Water. Gas. Industrial
Features	Black Pipe Compound. Large Diameter Pressure Pipes. Bimodal

## Typical Properties

	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt flow rate (MFR) (190°C/2.16kg)	0.08	g/10 min	ISO 1133
Melt flow rate (MFR5) (190°C/5.0kg)	0.30	g/10 min	ISO 1133
Melt flow rate (HLMI) (190°C/21.6kg)	9.0	g/10 min	ISO 1133
Density (pellets, pigmented)	0.959	g/cm <sup>3</sup>	ISO 1183
<b>Mechanical</b>			
Tensile Modulus (1 mm/min)	900	MPa	ISO 527
Tensile Strength at Yield, (23°C, 50 mm/min)	23	MPa	ISO 527
Elongation at Break, (23°C, 50 mm/min)	600	%	ISO 527
<b>Thermal</b>			
Vicat Softening Point (1 kg)	128	°C	ISO 306
<b>Chemical</b>			
ESCR (Condition C)	≥5000	hour	ASTM D1693
<b>Other</b>			
Carbon Black Dispersion	≤ 3	grade	ISO 18553
Carbon Black Content	2.3	%	ISO 6964

## Notes

These are typical property values not to be construed as specification limits

## REACH

Polyethylene are exempted from registration under REACH. However, the corresponding monomers (used as raw materials for polymer production) and relevant additives have been registered. Please see related Declaration of Compliance for Plastic Food Contact Materials (DoC for PFCM).

## Packaging

Polyethylene pellets is typically packed in polyethylene bags with net weight of 25kg each. 50 bags are stacked on a flat wooden pallet (dimensions: 1100mm x 1300mm x 150mm) with net weight of 1250kg per pallet that is stretch-hood film wrapped. Upon agreement with a customer PE pellet can be packed into big bag sized for 1000kg on wooden pallet (dimensions: 1140mm x 1140mm x 150mm) without stretch-hood film wrapping.

## Storage

Polyethylene product packed in 25kg bags or 1000kg big bags stacked on wooden pallet shall be stored in enclosed dry place preventing from direct sunlight at least 1 meter far from heaters, at temperature min. -15°C / max. 35°C, relative humidity max. 80%. Prior to processing PE product bags shall be kept in production area for at least 12 hours.

PE shelf life is 60 months from the date of manufacture.

HIGH DENSITY POLYETHYLENE. BLACK COMPOUND

# Extrusion Guidelines

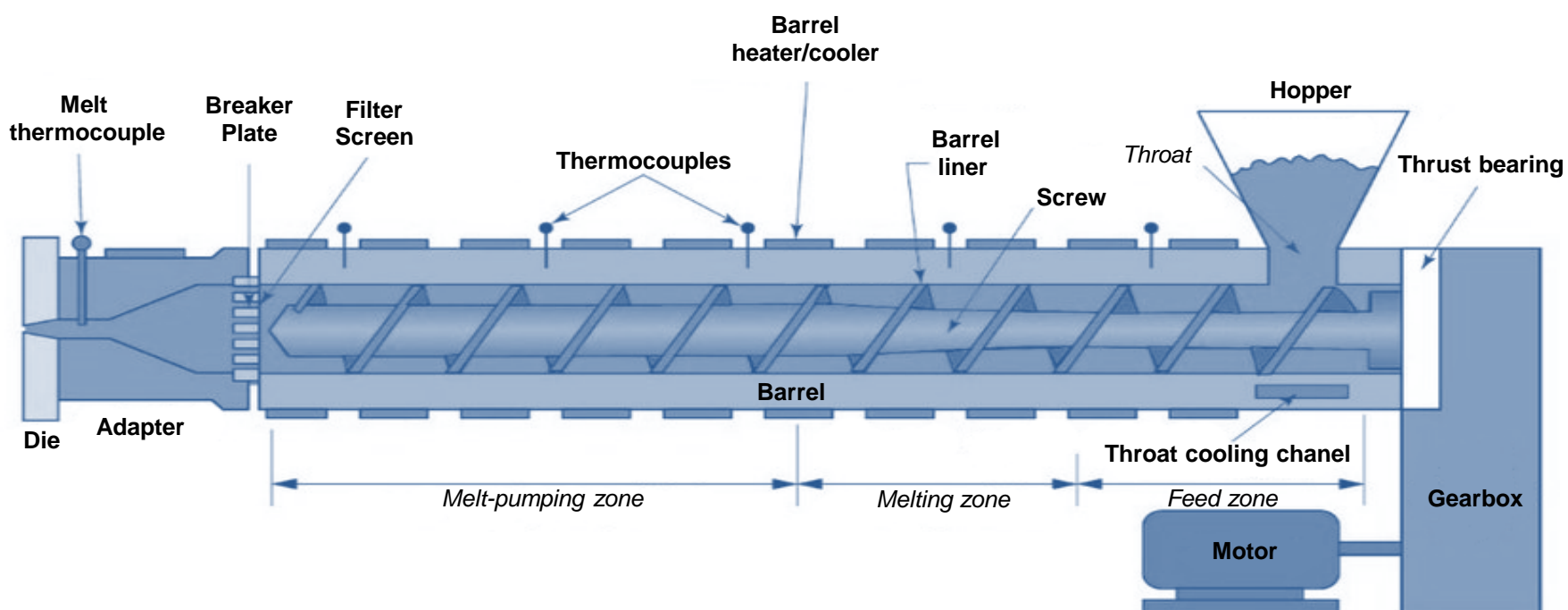
for HDPE Pipe Grade Resins  
Polyethylene, High Density, Black Compound



SOCAR Polymer offers an exclusive line of HDPE grades that are successfully used for the commercial production of pipes. These HDPE pipe grades run successfully on various types and designs of extruders to produce pipe over 1600mm in diameter.

SOCAR Polymer HDPE pipe grade materials extrude well at conditions similar to those traditionally used to process other PE pipe materials. We recommend the following typical extrusion parameters:

Cylinder/Barrel Temperatures	180-205 °C
Head Temperature	190-205 °C
Die Temperature	190-205 °C
Melt Temperature	200-220 °C



Typical extruder

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