

## Technical Data Sheet

### PE 40-Pipe

#### Polyethylene Pipe Grade

# Nirumand Polymer



Nirumand Polymer Co.  
Filled & Reinforced Engineering Plastics

#### Product Description

PE 40-Pipe is a black polyethylene compound filled with well-dispersed carbon black through the polyethylene matrix. This compound has outstanding properties such as good strength in hydrostatic pressure and excellent environmental stress cracking resistance (ESCR) and is classified into PE 40 classification according to ISIRI 7607 and ISO 8779 standard. This grade has been designed to be used in pipe extrusion process for drip irrigation and swage water piping and other pipe applications.

#### General Properties

Material Status • Commercial: Active

Forms • Pellets

Processing Method • Extrusion

Color • Black

Physical Properties	Value	Unit	Test Method
Density	0.93	gr/cm <sup>3</sup>	ISO 1183
Melt Mass-flow Rate (MFR) (190°C/2.16 kg)	0.3-0.6	gr/10 min	ASTM D1238
Carbon Black content	2-2.5	%	ASTM D1603
Carbon Black dispersion	< 3	.....	ISIRI 20059
O.I.T (200 °C)	> 20	min	ASTM D3895

Mechanical Properties	Value	Unit	Test Method
Tensile Strength@Break	≥ 15	MPa	ISO 527
Elongation@Break	> 100	%	ISO 527
Flexural Modulus	≤ 300	MPa	ASTM D790

Impact	Value	Unit	Test Method
Notched Izod Impact (23°C)	N.B	kJ/m <sup>2</sup>	ISO 180
Notched charpy Impact (23°C)	.....	kJ/m <sup>2</sup>	ISO 179

Hardness	Value	Unit	Test Method
Durometer Hardness	51	Shore D	ASTM D2240

◆ Values shown are average & are not to be considered as product specifications.

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