



GAIL (India) Ltd.

(A Govt. of India Undertaking)
Petrochemicals Marketing

E52A003/E52A003N

High Density Polyethylene for Pipe/Film Extrusion

Product Description and Typical Applications:

E52A003/E52A003N is recommended for pipe application like potable water, sprinkler, effluent, waste water systems and meeting the hydrostatic strength requirements as per IS 4984:2016 for PE-63 material. The material conforms to natural resin designation IS 7328-3B-PB-FX1A of IS 7328:2020.

Property	Values*	Unit	Test Method
Melt Flow Index (I ₂)	0.22	g/10min	ASTM D1238
Melt Flow Index (I ₅)	0.95	g/10min	ASTM D1238
Density @ 23°C	0.954	g/cc	ASTM D1505
Tensile Strength @ Yield	240	kg/cm ²	ASTM D638, Type IV
Elongation @ Yield	10	%	ASTM D638, Type IV
Elongation @ Break	>600	%	ASTM D638, Type IV
Flexural Modulus	10000	kg/cm ²	ASTM D790
Izod Impact Strength	120	J/m	ASTM D256
Shore D Hardness	62	-	ASTM D2240
ESCR (10% Igepol), F5	>500	hrs	ASTM D1693
Vicat Softening Point	123	°C	ASTM D1525

* Typical characteristics of the product given purely as a guide. Mechanical properties were determined on compression moulded specimens.

Processing Guidelines:

Barrel temperature: 170.- 210°C

Regulatory Information:

Certificate is available on request.

Packaging & Storage:

E52A003/E52A003N is available in natural colour, pellet form in 25 kg woven sacks. The product should be stored in dry conditions at temperature below 50°C and protected from UV light.

For any technical assistance contact:

GAIL Polymer Technology Centre, GAIL (India) Limited

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The information, data and technical assistance provided hereof is the responsibility of the user to ensure that the product is suited and the information is applicable to the user specific application.