



GAIL (India) Ltd.
(A Govt. of India Undertaking)
Petrochemicals Marketing Division

P54A001

P54A001N

High Density Polyethylene for Pipe Extrusion

Application: P54A001/P54A001N is recommended for pipe application like potable water (IS 4984), sprinkler irrigation (IS 14151) and sewerage (IS 14333), meeting the hydrostatic strength requirements as per IS 4984-95 for PE-80 material. It offers excellent processability, chemical resistance and mechanical properties.

The material conforms to natural resin designation PE EN C50 T006 of IS 7328:1992 and shall meet the same given in the amendment No. 2 of IS 4984:1995. When adequate quantity of carbon black as specified in Clause 5.2.3 of IS 4984:1995, Clause 4.2 of IS 14151(Part1):1999 and Clause 5.1.4 of IS 14333:1996, is added to this grade it meets the requirements of the designation PE EW C50 T006 of IS 7328:1992.

Property	Values*	Unit	Test Method
Melt Flow Index (I ₂)	0.09	gm/10min	ASTM D1238
Melt Flow Index (I ₅)	0.45	gm/10min	ASTM D1238
Density	0.954	gm/cc	ASTM D1505
Tensile Strength @Yield	240	kg/cm ²	ASTM D638, Type IV
Elongation @Yield	11	%	ASTM D638, Type IV
Elongation @Break	>600	%	ASTM D638, Type IV
Flexural Modulus	10000	kg/cm ²	ASTM D790
Shore D Hardness	62	-	ASTM D2240
Vicat Softening Point	124	°C	ASTM D1525
ESCR (10% Igepol), F ₅₀	>1000	hrs	ASTM D1693B
Thermal Stability (OIT)	>45	min	ASTM D3895

* 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:

P54A001/P54A001N is available in natural colour/pellet form in 25 kg strong bags made of woven fabric. 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

B-35/36, Sector-1, Noida, UP-201301, Tel: +91-0120-2549155/156, 2549310; Fax: 011-26185941

Website: www.gailonline.com

The information, data and suggestions contained herein are to the best of our knowledge accurate and reliable. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user specific application.