



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

## **E52U003/ E52U003N**

### **High Density Polyethylene for PLB/DWC Ducts**

**Application:** E52U003/ E52U003N is UV stabilized grade recommended for PLB/DWC HDPE Telecom ducts. The material conforms to **DoT, TEC** specification:

- Generic Requirements No. TEC/GR/FA/CDS-008/04/AUG-2019, for 'Permanently Lubricated HDPE Telecom ducts for use as underground Optical Fiber Cable conduits.
- Generic Requirements No. TEC/GR/FA/DWC-034/02/AUG-2019 for 'Double Walled Corrugated HDPE Ducts (DWC).

<b>Property</b>	<b>Values*</b>	<b>Unit</b>	<b>Test Method</b>
Melt Flow Index (I <sub>5</sub> )	0.95	g/10min	ASTM D1238/IS 2530
Density @23°C	0.954	g/cc	ASTM D1505/IS 2530
Tensile Strength @Yield	240	kg/cm <sup>2</sup>	ASTM D638, Type IV
Elongation @Yield	10	%	ASTM D638, Type IV
Elongation @Break	>600	%	ASTM D638, Type IV
Flexural Modulus	10000	kg/cm <sup>2</sup>	ASTM D790
Shore D Hardness	62	-	ASTM D2240
Heat Deflection Temperature @ 45 gm/mm <sup>2</sup>	67	°C	ASTM D648
ESCR (10% Igepol), F <sub>50</sub>	>500	hrs	ASTM D1693B
Thermal Stability (OIT)	>45	min	ASTM D3895/DoT
Izod Impact Strength	120	J/m	ASTM D256
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 – 200°C

### **Regulatory Information:**

Certificate is available on request.

### **Packaging & Storage:**

E52U003 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, GAIL (India) Limited**

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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.