

High Density Polyethylene

Pressure Pipe

Product Description:

HDPE 004DP44 is a natural high density bimodal Polyethylene grade produced by Lyondell Basell's Hostalen Slurry Process with Excellent Processability & Mechanical Properties. This grade meets the MFI, Density & hydrostatic pressure test requirement of PE80 Grade as per IS: 4984:2016.

Recommended Applications:

HDPE 004DP44 is recommended for PE80 pressure pipe applications such as

- Pipes for Water transportation
- Sewerage Pipes, Sprinkler Pipes etc.

Typical Properties:

Tested Properties	Test Method	UOM	Values*
Resin Properties			
Melt Flow Index (190°C & 5 Kg)	ASTM D1238	gm/10 min	0.45
Density @ 23°C	ASTM D1505	gm/cm ³	0.950
Mechanical Properties			
Tensile Strength @ Yield (Type-IV)	ASTM D638	MPa	27
Elongation @ Break (Type-IV)	ASTM D638	%	>600
Notched Izod Impact Strength @ 23 °C	ASTM D256	J/m	350
Flexural Modulus	ASTM D790	MPa	900
Hardness	ASTM D2240	Shore D	64
Thermal Properties			
Vicat Softening Point (10N)	ASTM D1525	°C	126
Oxidative Induction Time	ASTM D3895	Min	>30
Environmental Properties			
ESCR (10% Igepal), F ₅₀	ASTM D1693	Hrs	>1000

* Typical values not to be construed as specification limits. Values may change without any prior notice.

* Mechanical Properties tested on compression Molded test specimens.

Recommended Processing Temperature: 180 – 220°C

Packaging Information:

This material is packed and available in raffia bags with net content of 25.0 Kg only. The raffia bags used conforms to the minimum strength requirements of BIS, however, customer shall take due care while handling the bag. Prolonged exposure of these bags to sunlight may deteriorate the bag's performance and cause spillage and wastage. IOCL does not warranty loss of material due to poor material handling practices.

Storage & Handling:

Prevent HDPE Material from direct exposure to sunlight & heat to avoid quality deterioration. The storage location should be dry, dust free and the storage temperature should not exceed 50°C. Non - compliance to these precautionary measures can lead to degradation of the product causing color changes, odor and inadequate product performance. It is advised to process HDPE material within 06 months of delivery.

Regulatory Information:

HDPE 004DP44 meet "Specification for Polyethylene for safe use in contact with Foodstuff, Pharmaceuticals and Drinking water" as per IS: 10146-1982. It also confirms to the positive list of constituents as per IS: 10141-1982. The grade and Additives incorporated shall meet with FDA: CFR Title21, 177.1520, Olefin Polymers.

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