

P5002U



High Density Polyethylene

Pipe Extrusion

Product Description:

P5002U is a natural colored grade produced with the latest Mitsui CX slurry polymerization Technology.

P5002U is adequately stabilized with **HALS⁺** to provide longer service life in outdoor conditions & exhibits the following features:

- ✓ Very Good Processing Properties
- ✓ Good mechanical properties
- ✓ Excellent Stress Crack Resistance

- ✓ Good external appearance

HDPE P5002U is recommended for following applications:

- ✓ Telecom ducts for optical fiber cable
- ✓ General purpose application

Typical Properties:

Sr. No.	Properties	Test Method	Units	Values*
Physical Properties				
1	Melt Flow Index (190°C & 5.00 kg)	ASTM D1238	g / 10 min	0.90
2	Density (at 23 °C)	ASTM D1505	gm/cm ³	0.950
3	Density (at 27 °C)	IS 4984	gm/cm ³	0.947
Mechanical Properties**				
4	Tensile Strength @ Yield (50mm / min)	ASTM D638	MPa	23
5	Elongation @ Break (50mm / min)	ASTM D638	%	>800
6	Notched Izod Impact Strength (at 23 °C)	ASTM D256A	J/m	>160
7	Flexural Modulus	ASTM D790A	MPa	900
8	Hardness	ASTM D2240	Shore D	60
9	ESCR (F ₅₀ , 10% Igepal Soln. v/v)	ASTM D1693B	Hours	>700
Thermal Properties				
10	Vicat Softening Point (10N)	ASTM D1525	°C	120
11	Heat Deflection Temperature (0.455 Mpa)	ASTM D648	°C	65
12	Oxidative Induction Time (OIT)	ASTM D3895	Minutes	>30
** Mechanical Properties tested on Compression Molded Specimen.				
* Typical Values and not to be taken as specification limits, values may change without any prior notice.				

Recommended Processing Temperature: 180 – 220 °C

⁺HALS: Hindered Amine Light Stabilizer.

Note: This product is not to be used in the manufacture of SUP (Single Use Plastic) items prohibited under PWM (Plastics Waste Management) Rules, 2016.

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Regulatory Requirements:

HDPE Pipe grade P5002U shall meet the requirements stipulated in IS 10146:1982 on 'Specification of Polyethylene for safe use in contact with Foodstuff, Pharmaceutical & Drinking water'. The grade and Additives incorporated in this grade shall meet the positive list of constituents as prescribed in IS 10141:1982.

Storage & Handling:

Prevent Polyethylene 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 & inadequate product performance.

Health and Safety Information:

The product described herein may require precautions in handling and use because of toxicity, flammability, or other consideration. The Material Safety Data Sheet (MSDS) contains the available product health and safety information for this material and can be found at www.opalindia.in. Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.



ONGC Petro additions Ltd

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Contact: ONGC Petro Additions Ltd., 35, Nutan Bharat Co-operative Housing Society Limited,, R.C. Dutt Road, Alkapuri, Vadodara-390007, Gujarat India, Telephone: +91 265 6192600, Fax: +91 265 6192622, Corporate Site: www.opalindia.in PARC/2023/11-01