

Technical Datasheet

Y0154S Polysure HDPE

Monofilament

Product Characteristics:

Polysure Y0154S is 1-butene comonomer based High Density Polyethylene, produced by Gas Phase – UNIPOL™ PE technology, suitable for Monofilament Extrusion process. Y0154S offers narrow molecular distribution with superior processability in terms of stretching, spinnability and die build up. The filament produced from this grade, will have excellent tenacity & good elongation.

Recommended Applications:

Mosquito Nets, Fishing Nets, Ropes, Twines

Typical Properties:

Sr. No.	Property	Test Method	Unit	Value*
1	Melt Flow Index (190°C & 2.16 kg)	ASTM D1238	g/10 min	1.0
2	Density (23°C)	ASTM D1505	g/cc	0.954
3	Tensile Strength at Yield, Type IV Specimen	ASTM D638 (50 mm / min)	MPa	26
4	Tensile Strength at Break, Type IV Specimen		MPa	36
5	Tensile Elongation at Break, Type IV Specimen		%	950
6	Flexural Modulus (2% Secant)	ASTM D790B	MPa	1050
7	Notched Izod Impact Strength (23°C)	ASTM D256A	J/m	600
8	Vicat Softening Point (10N)	ASTM D1525	°C	128

* All the mechanical properties are determined on Compression Molded Test Specimen, prepared in accordance with ASTM D4703

Processing Guidelines:

- Barrel Temperature : 190 - 240°C
- Die Temperature : 220 - 240°C
- Quench Temperature : 25 - 30°C

Storage & Handling:

Bags should be stored in dry & dust free environment at temperature below 50°C and Prevent from direct exposure to sunlight & heat to avoid quality deterioration.

This grade meets the requirements of IS 7328:2020 - Specification for Polyethylene Material for Moulding and Extrusion.

Regulatory Requirements:

Y0154S to be manufactured complying the requirements specified in IS 10146 on "Specification for Polyethylene for its safe in contact with Foodstuff, Pharmaceutical & Drinking water". Furthermore, the Additives added in this grade formulation compiles to the "Positive list of constituents for Polypropylene, Polyethylene and their Copolymers for its safe use in contact with Foodstuffs & Pharmaceuticals' as laid down under IS 16738:2018. In general, the additives & constituents used in the grade are in line with requirement laid down under FDA: CFR Title 21,177.1520, Olefin Polymers.

Updated as of July 2025

Disclaimer: The information & data presented herein are typical values & should not be considered as specification and may be used as guideline only. HME L does not undertake any responsibility for any outcome or results from the adoption or replication of the above-mentioned data & information there on for possible use for various applications. HME L reserves the right to change the information & data without any prior notice or information. The user will solely be responsible for any process/product usage.

HPCL-Mittal Energy Limited (HME L), The Rise, Plot No.17B & 17C, Block – FC, Sector-16A, Noida – 201301 (U.P), India. Tel: 0120-4634500. Corporate Site: www.hmel.in