Manufacturer website: https://oq.com/en/

# Luban HD-F4812

**(Legacy name: Luban DGDX-6097)**

## High Density Polyethylene

## Description

Luban HD-F4812 is a high molecular weight, high-density polyethylene copolymer that has been designed specifically for tubular film extrusion. Its broad molecular weight distribution and density successfully combine to give excellent performance at high extrusion rates with high film strength and rigidity. The grade is recommended for high strength grocery sacks, shopping bags and notion and millinery bags. The excellent drawdown characteristic of this product permits production of high-quality thin films for multi-wall sack liners and replacement for thin paper products. The combination of strength and drawdown makes this resin ideal for downgauging in many applications. The grade is compatible with color concentrates, thus permitting the production of a variety of colored films that serve as protective and attractive decorative wraps.

Main Characteristics:

- Butene High Density Resin
- High film strength
- Excellent drawdown

## Application

High strength grocery sacks, shopping bags and notion and millinery bags

## Properties (Typical Values)

| Property | Unit | Test method | Value |
|---|---|---|---|
| Melt Index (190°C/2.16 kg) | g/10 min | ASTM D1238 | 0.05 |
| Melt Index (190°C/21.6 kg) | g/10 min | ASTM D1238 | 10.5 |
| Density | g /cm³ | ASTM D792 | 0.948 |
| Flexural Modulus - 1% Secant | MPa | ASTM D790[1] | 1040 |
| Tensile stress at yield (MD/TD) | MPa | ASTM D882[2] | 30/27 |
| Tensile stress at break (MD/TD) | MPa | ASTM D882[2] | 51/60 |
| Tensile strain at break (MD/TD) | % | ASTM D882[2] | 220/400 |
| Dart Drop Impact (12.7 µm) | g | ASTM 1709A[2] | 127 |
| Vicat Softening Temperature | °C | ASTM D1525 | 123 |
| Melting Temperature (DSC) | °C | ASTM D3418 | 129 |

[1]Molded and tested in accordance with ASTM D4976

[2]Tested on Blown film fabricated at: Frost Line Height: 1080 mm, Blow-Up Ratio: 4:1

**Note:** These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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## Storage and Handling

Luban HD-F4812 must be protected from direct sunlight and should be stored in a shaded and completely dry area. During handling and processing, the material should be kept in a well-ventilated area to prevent the accumulation of dust and fumes. Contact with strong oxidizers, excessive heat, sparks or open flame should be avoided as this could initiate the degradation process and consequently impact the quality of the material.

## Safety

Luban HD-F4812 is not classified as dangerous preparation. For further information about safety in handling and processing please refer to the Safety Data Sheet.

## Food Contact

Luban HD-F4812 meets the requirements of the U.S. Food and Drug Administration (FDA) as specified in 21 CFR 177.1520, covering safe use of polyolefin articles and components of articles intended for direct food contact. For additional information on approved conditions of use for food contact applications, please refer to the "Product Stewardship Declaration".

## Recycling

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

Updated: Aug. 2025

**Disclaimer:**
Values given here are typical and should not be interpreted as specification. Before using OQ product, customers and other users should make their own independent determination that the product is suitable for the intended use. This document does not constitute a warranty, express or implied, including a warranty of merchantability or fitness for a particular purpose. In addition, no immunity under OQ or third parties' intellectual property rights shall be implied from this document. No one is authorized to make any warranties, issue any immunities or assume any liabilities on behalf of OQ except in a writing signed by an authorized OQ employee. Unless otherwise agreed in writing, the exclusive remedy for all claims is replacement of the product or refund of the purchase price at OQ's option, and in no event shall OQ be liable for special, consequential, incidental, punitive or exemplary damages.

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