

Marlex[®] TRB-115 Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

This bimodal high molecular weight, high density polyethylene (HMW-HDPE) ethylene-hexene copolymer is tailored for blown film applications that require:

- Good bubble stability and film drawdown
- High impact strength and toughness
- Excellent stiffness and tensile strength
- Balanced tear strength

Typical blown film applications include:

- T-shirt bags
- Produce bags
- Merchandise bags
- Industrial liners
- Trash can liners

This resin meets these specifications:

- FDA 21 CFR 177.1520(c) 3.2a. The resin may be used in contact with all types of food as defined in Table 1, 21 CFR 176.170(c) and at use conditions B-H as defined in Table 2, 21 CFR 176.170(c).

Nominal Resin Properties	English	SI	Method
Melt Index, 190 °C/2.16 kg	---	0.06 g/10 min	ASTM D1238
HLMI, 190 °C/21.6 kg	---	9.5 g/10 min	ASTM D1238
Density	---	0.950 g/cm ³	ASTM D1505

Nominal Blown Film Properties at 0.5 mil ¹	English	SI	Method
Dart	260 g/mil	100 N/mm	ASTM D1709
Elmendorf Tear MD	15 g/mil	6 N/mm	ASTM D1922
Elmendorf Tear TD	450 g/mil	174 N/mm	ASTM D1922
Tensile Strength at Break MD	13,000 psi	90 MPa	ASTM D882
Tensile Strength at Break TD	6,000 psi	41 MPa	ASTM D882
Tensile Elongation at Break MD	260 %	260 %	ASTM D882
Tensile Elongation at Break TD	570 %	570 %	ASTM D882
1 % Secant Modulus MD	120,000 psi	827 MPa	ASTM D882
1 % Secant Modulus TD	140,000 psi	965 MPa	ASTM D882

1. 0.5 mil (12.7 micron) film produced using a grooved-feed extruder at a rate of 225 lb/h with a stalk height of 7 x Die Diameter, a 4:1 Blow-Up Ratio (BUR), a 6 inch die diameter and a 0.040 inch die gap. The nominal properties reported herein are representative of the product under these processing conditions, although film properties can vary depending on the specific film-blowing conditions. Therefore, the data should not be used for specification purposes.

Revision Date: August, 2021



Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Chevron Phillips Chemical Company LP does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.