

## PRODUCT SPECIFICATION AND DATA SHEET

### LOW DENSITY POLYETHYLENE

Low Density Polyethylene Bags / Tubing from Elkay Plastics Co., Inc. meet the following specifications:

- Manufactured from 100% virgin Low Density polyethylene resin.
- Meet Requirements for Type I (normal impact strength) or Type II (for 3, 4 and 6 mil) (high impact strength), Class 2 (food contact) Grade B (medium slip), Finish 1 (untreated) under **Federal Specification A-A-3174**
- Complies with the following **FDA Regulations**: 21 CFR 175.320, 21 CFR 177.1010, 21 CFR 177.1520, 21 CFR 177.1350, 21 CFR 178.2010, 21 CFR 178.3295, 21 CFR 178.3570, 21 CFR 179.45
- Products are chemically acceptable for use in temperatures below 65° C as packaging material in direct contact with meat and poultry food products prepared under Federal Meet **Military Specification DTL-117H**, Type III, Class B, Style 2, referring to Low Density Virgin Polyethylene.
- Bag measurements are based on inside dimensions and meet industry standard tolerances.
- Chemical Composition: Carbon and Hydrogen. Contains **no** latex, mercury, sulfur, nitrogen, silicon, heavy metals, BPA (biphenyl A), polyvinyl chlorides, polystyrenes, polycarbonates, phthalates, BHT (butylated hydroxyl toluene), DEHA ( diethyl hydroxylamine), DEHP (di (2-ethylhexyl) phthalate), PFOS (perfluorooctane sulfonates), PBDE (poly brominated diphenyl ether) or PBB (poly brominated biphenyl)
- Contains no animal derivative ingredients
- Complies with RoHS 3 (Restrictions of Hazardous Substances)
- Complies with WEEE (Waste Electrical & Electronic Equipment)
- Complies with CMM (China's Management Methods)
- Complies with REACH (**R**egistration, **E**valuation, **A**uthorisation and **R**estriction of **C**hemical Substances)
- Complies with California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
- Complies with California SB657 Slavery & Human Trafficking Legislation
- Complies to HR 4173 Wall Street Reform & Consumer Protection Act "Conflict Minerals"
- Complies with CONEG Legislation

PROPERTY CONDITIONS	ASTM TEST METHOD	LDPE TYPICAL VALUES
<b>Resin Properties</b>		
Melt Index, g/10 min	D 1238	2.0 to 2.5
Density, g/cm <sup>3</sup>	D 1505	.922
<b>Blown Film Properties</b>		
Elongation at Break, %	D 638	635
Elmendorf Tear Strength, g/mil	D 1922	MD 400 – 500 TD 175 - 250
Tensile Strength Yield, MPa	D 882	MD 11 – 14.5 TD 11.5 - 12
Tensile Strength Yield, psi	D 638	1700 - 2100
Tensile Strength Break, MPa	D 882	MD 21 - 22 TD 16 – 17.2
Ultimate Tensile, MPa	D 882	MD 21 -25 TD 16 - 17.6
Modulus of Elasticity, %	D 882	MD 290 – 350 TD 560 - 600
Elongation at Break, %	D 882	MD 200 – 290 TD 550 – 560
Impact Strength, Dart, g.	D1709	80 - 95
Coefficient of Friction	D 1894	.1 - .18
Haze, %	D 1003	5 to 8.5
Gloss, 45°	D 2457	60 - 105
Service Temperature - °F		-60 – 180
Heat Seal Temperature - °F		260 - 350
Water Vapor Transmission Rate, G/m <sup>2</sup> * 24hour (g/100 sq. in * 24 hour)	ASTM F 372	18.6 (1.2)
Oxygen Permeability Rate, cm <sup>3</sup> * mm/m <sup>2</sup> * 24 hour * atm (cm <sup>3</sup> * mil/m <sup>2</sup> * 24 hour * atm)	ASTM D 1434	200 (7,850)

**Test Specimens: Nominal thickness of 1.25 mil: Blow-up Ratio of 1.9:1**

In addition to the above specifications, **Elkay Plastics Co., Inc.** or its suppliers use no Ozone Depleting Chemicals in the manufacture of its products. The values shown on the chart are typical values. Due to the use of various resins, additives and manufacturing processes, Elkay Plastics Co., Inc. does not guarantee the same results as shown above. **Each user of the material should make their own tests to determine the specific products suitability for their particular application.**

Elkay Plastics Co. uses resins formulation with low slip medium anti-block suggested for applications that require heat sealing and good clarity. It may be used in food contact applications but limits its use to nonalcoholic foods. **Users must make their own determination of its safety, lawfulness, and technical suitability in its intended application.**

*The data and information represented herein refer to typical values obtained in our manufacturer's laboratories. Since processing variables are a major factor in product performance, this information should serve as a guide. There is no implied warranty of merchantability or fitness for a particular purpose. Elkay Plastics Company, Inc. assumes no obligation, express or implied, or liability for use of the information and data represented.*