# Polyethylene & Liquiflex—POE™

## Linear Low Density Polyethylene – LLDPE

LLDPE's greatest advantage over low density polyethylene is its superior environmental stress crack resistance (ESCR). Environmental stresses that can shorten the service life of tubing include: chemical exposure, aging, connection to barb-type fittings, or high vibration connections with compression fittings. All colors comply with FDA regulation 21 CFR 177.1520(c) for food contact applications. Freelin-Wade has chosen to standardize on linear low density polyethylene and no longer offers low density polyethylene.

### Specifications

**Temperature Range**
LLDPE & Liquiflex:
-40°F to +150°F

**Vacuum Rating**
All: To 28" Hg.

**Diameter Tolerance**
LLDPE: ±.004"
Liquiflex: ±.005"

**Hardness**
LLDPE: 50 Shore D
Liquiflex: 92A

**Tube Markings**
LLDPE & Liquiflex:
FW Specifications

**Working Pressure**
LLDPE & Liquiflex:
3:1 Safety Factor

**Resin Compliance**
LLDPE: FDA, NSF51
Liquiflex: FDA

Polypropylene has been discontinued as a standard item. Call Customer Service for special orders.

### Features

- Greater tensile strength
- High burst pressure
- Superior stress and crack resistance
- Tasteless and odorless
- Puncture resistance
- Impermeable to gasses and moisture
- Superior dielectric properties
- Lightweight

### Polyethylene Colors

Any of our polyethylene tubing products are available in the colors shown below. If not shown as a standard item, please allow three weeks to fulfill your order. Due to LLDPE manufacturing restrictions, these color variations may require a 5,000 foot minimum.

01 04 05 06 07 08 09 10 12

### Polyethylene (Linear Low Density: LLDPE)

| Part Number & Color Code | Packaging Unit Size | OD | ID | Wall | Standard Colors | Working Pressure 75°F/25°C | Working Pressure 150°F/65°C | lbs./ 100' | Bend Radius | Fitting |
|---|---|---|---|---|---|---|---|---|---|---|
| 1J-109- ___ | 100' Bag | | | | | | | | | |
| 1L-109- ___ | 250' Box | | | | | | | | | |
| 1C-109- ___ | 500' Reel | 1/8" | .062" | .031" | 01 04 05 06 07 08 09 10 | 305 PSI | 120 PSI | .40 | 1/2" | PI, C |
| 1B-109- ___ | 1000' Reel | | | | | | | | | |
| 1A-109- ___ | 2500' Reel | | | | | | | | | |
| 1J-189- ___ | 100' Bag | | | | | | | | | |
| 1L-189- ___ | 250' Box | | | | | | | | | |
| 1C-189- ___ | 500' Reel | 5/32" | .106" | .025" | 01 05 06 07 08 10 | 175 PSI | 70 PSI | .46 | 1" | PI, C |
| 1B-189- ___ | 1000' Reel | | | | | | | | | |
| 1A-189- ___ | 2500' Reel | | | | | | | | | |
| 1J-048- ___ | 100' Bag | | | | | | | | | |
| 1B-048- ___ | 500' Reel | 1/4" | .170" | .040" | 01 04 05 06 07 08 09 10 12 | 200 PSI | 80 PSI | 1.2 | 1-1/4" | PI, C |
| 1A-048- ___ | 1000' Reel | | | | | | | | | |
| 1J-077- ___ | 100' Bag | 5/16" | .187" | .062" | 01 05 06 07 08 10 | 230 PSI | 90 PSI | 2.5 | 1-1/2" | PI, C |
| 1A-077- ___ | 500' Reel | | | | | | | | | |
| 1J-074- ___ | 100' Bag | 3/8" | .250" | .062" | 01 04 05 06 07 08 09 10 | 190 PSI | 75 PSI | 2.76 | 2" | PI, C |
| 1A-074- ___ | 500' Reel | | | | | | | | | |
| 1J-076- ___ | 100' Bag | | | | | | | | | |
| 1A-076- ___ | 250' Reel | 1/2" | .375" | .062" | 01 05 06 07 08 09 10 | 135 PSI | 55 PSI | 3.87 | 2-1/2" | PI, C |
| 1AA-076-___ | 500' Reel | | | | | | | | | |
| 1A-086- ___ | 100' Reel | 5/8" | .500" | .062" | 01 10 | 100 PSI | 40 PSI | 5 | 3" | PI, C |
| 1AA-086- | 300' Reel | | | | | | | | | |



## Polyethylene (Linear Low Density: LLDPE)

**Metric Sizes**

| Part Number & Color Code | Packaging Unit Size | OD mm | ID mm | Wall mm | Standard Colors | Working Pressure 75°F/25°C | Working Pressure 150°F/65°C | lbs./ 100' | Bend Radius | Fitting |
|---|---|---|---|---|---|---|---|---|---|---|
| 1J-189- ___ | 100' Bag | | | | | | | | | |
| 1L-189- ___ | 250' Box | | | | | | | | | |
| 1C-189- ___ | 500' Reel | 4 | 2.7 | .65 | 01 05 06 07 08 10 | 175 PSI | 70 PSI | .46 | 25.2 mm | PI, C |
| 1B-189- ___ | 1000' Reel | | | | | | | | | |
| 1A-189- ___ | 2500' Reel | | | | | | | | | |
| 1J-071- ___ | 100' Bag | | | | | | | | | |
| 1B-071- ___ | 500' Reel | 6 | 4 | 1 | 01 07 10 | 175 PSI | 70 PSI | 1.1 | 31.8 mm | PI, C |
| 1A-071- ___ | 1000' Reel | | | | | | | | | |
| 1J-072- ___ | 100' Bag | 8 | 6 | 1 | 01 05 07 10 | 140 PSI | 55 PSI | 1.5 | 38 mm | PI, C |
| 1A-072- ___ | 500' Reel | | | | | | | | | |
| 1J-073- ___ | 100' Bag | 10 | 8 | 1 | 01 07 10 | 115 PSI | 45 PSI | 2.1 | 51 mm | PI, C |
| 1A-073- ___ | 500' Reel | | | | | | | | | |
| 1J-075- ___ | 100' Bag | | | | | | | | | |
| 1A-075- ___ | 250' Reel | 12 | 9 | 1.5 | 01 07 10 | 135 PSI | 55 PSI | 3.44 | 63 mm | PI, C |
| 1AA-075- ___ | 500' Reel | | | | | | | | | |

**Variations Available:** Colors • Cutting • Printing • Packaging • Sizes



## Liquiflex–POE™

- Greater flexibility
- UV Resistant
- Makes an excellent coil
- Can be bonded

Freelin-Wade has developed a new polyolefin tube that is more flexible than the polyethylene that you've seen before. It has all of the chemical resistant properties of LLDPE and is an excellent choice for conveying liquids. Note that it has low pressure ratings, particularly in warm environments.

### Liquiflex–POE™

| Part Number & Color Code | Packaging Unit Size | OD | ID | Wall | Standard Colors | Working Pressure 75°F/25°C | Working Pressure 150°F/65°C | lbs./ 100' | Bend Radius | Fitting |
|---|---|---|---|---|---|---|---|---|---|---|
| 1J-961- ___ | 100' Bag | | | | | | | | | |
| 1B-961- ___ | 500' Reel | 1/4" | 1/8" | .062" | 01 | 125 PSI | 75 PSI | 1.52 | .75" | B, PI, C |
| 1A-961- ___ | 1000' Reel | | | | | | | | | |
| 1J-962- ___ | 100' Bag | | | | | | | | | |
| 1C-962- ___ | 500' Reel | 1/4" | .170" | .040" | 01 05 | 80 PSI | 20 PSI | 1.08 | 1.375" | B, PI, C |
| 1A-962- ___ | 1000' Reel | | | | | | | | | |
| 1J-963- ___ | 100' Bag | 3/8" | .245" | .062" | 07 10 | 75 PSI | 35 PSI | 2.56 | 1.5" | B, PI, C |
| 1A-963- ___ | 500' Reel | | | | | | | | | |
| 1J-964- ___ | 50' Bag | 1/2" | 3/8" | .062" | 01 05 | 60 PSI | 25 PSI | 3.52 | 2.75" | B, PI, C |
| 1A-964- ___ | 250' Reel | | | | | | | | | |

**Coiling • Colors • Cutting • Bonding • Printing • Packaging • Sizes**