Finger Lakes Extrusion
Flexible Solutions in Plastics

# Ester-PUR FLEX™ 85

The Ester-PUR FLEX™ 85 product line is made from an ester based polyurethane resin. This material is much more abrasion and impact resistant than PVC while maintaining flexibility and clarity. Urethane also possesses a high level of chemical compatibility. Since this is a pure polyurethane resin, it contains no plasticizers and has a very low level of extractables making it a great product for high purity applications. This formulation is NOT recommended for aqueous solutions.

## Typical Applications

- High-purity applications
- Fuel lines
- Instrumentation
- Cable jacketing
- Gas sampling lines
- NOT recommended for use with aqueous solutions

## Specifications

All Ester-PUR FLEX™ 85 tubing products offer the following:

- Complies with FDA food-contact regulations 21 CFR 177.1680 (Polyurethane Resins) and 177.2600 (Rubber Articles Intended for Repeated Use), subject to the limitations of and any other applicable regulations.
- Meets REACH and ROHS standards, does not contain any substances listed on Proposition 65
- Does not contain any PFAS ingredients or any ingredients listed under the EPA TSCA Act

## Ester-PUR FLEX™ 85 Tubing

- Resistant to atmospheric ozone, aliphatic hydrocarbons and petroleum products
- Pure polyurethane; contains no plasticizers and low levels of extractables
- Tough; resists tearing and abraison
- Flexible at low teperatures

## Chemical Resistance

| Ratings for ideal conditions 73°F / 25°C | | | | | |
|---|---|---|---|---|---|
| Strong Mineral Acids | Organic Acids | Weak Acids | Bases Weak | Bases Strong | Solvents |
| Fair | Not Recommended | Good | Good | Good | Fair |


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## Physical Properties

| Properties | ASTM Method | Value Rating |
|---|---|---|
| Hardness; Shore A (+/- 5) | D2240 | 85 |
| Vacuum | | Not Recommended |
| Operating temperature range | | -70°F - 175° F<br>-56°C - 85°C |
| Maximum Working Pressure | | 73°F / 76PSI<br>125°F / 38PSI |
| Testing Size | | 1/4"ID x 1/16"W |
| Color | | Transparent Amber |
| Odor | | Slight |
| Taste | | N/A |
| Specific Gravity; g/cm$^3$ | D792 | 1.20 |
| Tensile Strength; psi | D638 | 5000 |
| Ultimate Elongation; % | D638 | 500 |
| Flame Resistance | D568 | Burns |

## Ester-PUR FLEX™ 85 Size Chart

| Catalog Number | Id (in) | Od (in) | Wall | Operating Pressure PSIG °F | Case Qty. Ft. |
|---|---|---|---|---|---|
| 8685-4170 | 1/16 | 1/8 | 1/32 | 106 | 100 |
| 8685-4240 | 1/8 | 3/16 | 1/32 | 70 | 100 |
| 8685-4245 | 1/8 | 1/4 | 1/16 | 110 | 100 |
| 8685-4290 | 3/16 | 1/4 | 1/32 | 56 | 100 |
| 8685-4295 | 3/16 | 5/16 | 1/16 | 86 | 100 |
| 8685-4330 | 1/4 | 5/16 | 1/32 | 50 | 100 |
| 8685-4335 | 1/4 | 3/8 | 1/16 | 76 | 100 |
| 8685-4340 | 1/4 | 7/16 | 3/32 | 96 | 100 |
| 8685-4345 | 1/4 | 1/2 | 1/8 | 110 | 100 |
| 8685-4390 | 5/16 | 7/16 | 1/16 | 66 | 100 |
| 8685-4400 | 5/16 | 9/16 | 1/8 | 100 | 100 |
| 8685-4430 | 3/8 | 1/2 | 1/16 | 56 | 100 |
| 8685-4435 | 3/8 | 9/16 | 3/32 | 76 | 100 |
| 8685-4440 | 3/8 | 5/8 | 1/8 | 90 | 100 |
| 8685-4465 | 7/16 | 5/8 | 3/32 | 66 | 100 |
| 8685-4505 | 1/2 | 5/8 | 1/16 | 40 | 100 |
| 8685-4515 | 1/2 | 3/4 | 1/8 | 76 | 100 |
| 8685-4565 | 5/8 | 13/16 | 3/32 | 52 | 100 |
| 8685-4570 | 5/8 | 7/8 | 1/8 | 60 | 100 |
| 8685-2605 | 3/4 | 1 | 1/8 | 56 | 50 |
| 8685-2640 | 7/8 | 1-1/8 | 1/8 | 46 | 50 |
| 8685-2675 | 1 | 1-1/4 | 1/8 | 40 | 50 |

* The above is accurate to the best of the Company's knowledge, however, these are typical values and should not be used as a certification. All materials should be tested for suitability in their intended use.


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