



Ether-PUR FLEX™ 84

Product Features

The Ether-PUR FLEX™ 84 product line is made from an ether 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 CAN be used with aqueous solutions.

Ether-PUR FLEX™ 84 Tubing

- Clear and Flexible
- Tough; resists tearing and abrasion
- Superior resistance to hydrolytic degradation compared to Ester-PUR FLEX 85
- Flexible at low temperatures
- High impact resistance
- Pure polyurethane; contains no plasticizers and low levels of extractables
- Resistant to atmospheric ozone
- Complies with FDA CFR21 for food packaging

Typical Applications

- High-purity applications
- Instrumentation
- Distilled, deionized, demineralized or reverse osmosis-treated water
- Handling petroleum- based products
- Recommended for use with aqueous solutions

Specifications

All Ether-PUR FLEX™ 84 tubing products offer the following:

- Manufactured from ingredients whose usage is sanctioned by the U.S. Food & Drug Administration under Title 21 of the Code of Federal Regulations for food packaging applications, per the following:

| Ingredients & CRF Paragraph No. | |
|--|----------|
| Adhesives | 175.300 |
| Polyurethane resins | 177.1680 |
| Rubber articles intended for repeated use. | 177.2600 |

Chemical Resistance

Ratings for ideal conditions 73°F / 25°C

| | |
|----------------------|-----------------|
| Strong Mineral Acids | Fair |
| Organic Acids | Not Recommended |
| Weak Acids | Good |
| Bases - Weak | Good |
| Bases - Strong | Good |
| Solvents | Fair |

Ether-PUR FLEX™ 84 Size & Physical Properties

Size Chart

| Catalog Number | ID Size In. | OD Size In. | Wall | Operating Pressure PSIG 73°F | Case Qty. Ft. |
|----------------|-------------|-------------|------|------------------------------|---------------|
| 8684-4170 | 1/16 | 1/8 | 1/32 | 90 | 100 |
| 8684-4240 | 1/8 | 3/16 | 1/32 | 58 | 100 |
| 8684-4245 | 1/8 | 1/4 | 1/16 | 92 | 100 |
| 8684-4290 | 3/16 | 1/4 | 1/32 | 48 | 100 |
| 8684-4295 | 3/16 | 5/16 | 1/16 | 72 | 100 |
| 8684-4335 | 1/4 | 3/8 | 1/16 | 76 | 100 |
| 8684-4340 | 1/4 | 7/16 | 3/32 | 80 | 100 |
| 8684-4345 | 1/4 | 1/2 | 1/8 | 92 | 100 |
| 8684-4390 | 5/16 | 7/16 | 1/16 | 56 | 100 |
| 8684-4400 | 5/16 | 9/16 | 1/8 | 84 | 100 |
| 8684-4430 | 3/8 | 1/2 | 1/16 | 48 | 100 |
| 8684-4440 | 3/8 | 5/8 | 1/8 | 76 | 100 |
| 8684-4465 | 7/16 | 5/8 | 3/32 | 56 | 100 |
| 8684-4505 | 1/2 | 5/8 | 1/16 | 34 | 100 |
| 8684-4515 | 1/2 | 3/4 | 1/8 | 64 | 100 |
| 8684-4565 | 5/8 | 13/16 | 3/32 | 44 | 100 |
| 8684-4570 | 5/8 | 7/8 | 1/8 | 50 | 100 |
| 8684-2605 | 3/4 | 1 | 1/8 | 48 | 50 |
| 8684-2640 | 7/8 | 1-1/8 | 1/8 | 38 | 50 |
| 8684-2675 | 1 | 1-1/4 | 1/8 | 34 | 50 |

Physical Properties

| Properties | ASTM Method | Value Rating |
|-------------------------------------|-------------|--------------------------------|
| Hardness; Shore A (+/- 5) | D2240 | 84 |
| Vacuum | | Not Recommended |
| Operating temperature range | | -70°F - 175° F -56°C - 80°C |
| Maximum Working Pressure | | 73°F / 76PSI 125°F / 38PSI |
| Testing Size | | 1/4"ID x 1/16"W |
| Color | | Transparent Natural |
| Odor | | None |
| Taste | | N/A |
| Specific Gravity; g/cm ³ | D792 | 1.12 |
| Tensile Strength; psi | D638 | 5500 |
| Ultimate Elongation; % | D638 | 500 |
| Flame Resistance | D568 | Burns |

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* 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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