Polyurethane combines the best properties of both plastic and rubber. It offers abrasion and tear resistance, high tensile and elongation values, and low compression set. Polyurethane is naturally flexible and exhibits virtually unlimited flexural abilities.

Combining good chemical resistance with excellent weathering characteristics sets polyurethane apart from most other thermoplastics. It has exceptional resistance to most gasolines, oils, kerosene, and other petroleum-based chemicals, making it an ideal choice for fuel lines (although additives in today's gasoline and petroleum products warrant field testing).

The two basic formulations of urethane, ester and ether, have some important differences. Water attacks ester-based urethane, causing a significant reduction in physical properties. Ether urethanes exhibit far superior hydrolytic stability, especially in humid environments. Ether-based materials also resist fungus growth better than ester-based materials.

Applications

- Abrasive Powder Transfer
- Agriculture
- Air Tools
- Automated Machinery
- Automotive
- Cement Slurries
- Computer Disc Drive Equipment
- Fluid Circuitry
- Fluid Feeds
- Granular Transfer
- Grease & Lubrication Lines
- Hydraulic Control Systems
- Instrumentation
- Insulating Sleeves
- Lubricated Air Feeds
- Metering Pumps
- Oil & Fuel Lines
- Oxygen & Gas Lines
- Petroleum Products Transfer
- Pneumatic Control Systems
- Pressure Measuring Devices
- Robotics
- Sensing Systems
- Small Motor Fuel Lines
- Transfer Lines for Clean Liquids
- Transfer Lines for Internal Contamination Fluids
- Vacuum Equipment
- Well Pipe and Cable Jacket
- More
**Transparent Polyurethane Tubing**

- Available in Ester or Ether formulations
- Both formulations made from non-toxic raw materials conforming to FDA standards for use with wet and fatty food contact surfaces
- Extremely resistant to weathering, tearing, impact, radiation, and abrasion
- Transparent, flexible, resilient, tough; resistant to oils, greases, and fuels†
- Wide range of temperature resistance: -85°F to 185°F (ester)
- Ether-based raw material is listed by the National Sanitation Foundation (NSF 61) for use with potable water
- Ester-based raw material is free of animal derived components and REACH compliant
- Free of DEHP, phthalates, BPA and conflict minerals
- RoHS compliant
- Can be heat sealed, coiled, fabricated, or bonded

**Notes**

†Hydrolytic Stability — For resistance to moisture and fungi, SUPERTHANE ether is recommended. (Ester polyurethane does not react well with water, prolonged humid conditions, or attack from fungi.) The raw material used in its manufacture is listed by the National Sanitation Foundation (NSF 61).

SUPERTHANE is much more resistant to pressure and vacuum applications than corresponding sizes of PVC or rubber.

††Although polyurethane is commonly used in fuel applications, due to additives in today’s gasoline and petroleum products, field testing should be performed.

When used with Thermobarb® fittings, SUPERTHANE will not require clamps, provided that working pressures remain at or below 105 psi at ambient temperature.

Custom coiled polyurethane is available — call for details.

For easy identification, SUPERTHANE is imprinted with the trademarked name.

**Physical Properties**

<table>
<thead>
<tr>
<th></th>
<th>ESTER</th>
<th>ETHER</th>
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<tr>
<td>Hardness, Shore A</td>
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<td>85</td>
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<tr>
<td>Tensile Strength, psi</td>
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<tr>
<td>Elongation at Break, %</td>
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<td>Brittle Temperature, °F</td>
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<td>-85</td>
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<tr>
<td>Maximum Operating Temp., °F</td>
<td>185</td>
<td>175</td>
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</table>

**Call for more information:** 800-506-3924 or 215-526-2300

**Recommended Fittings & Clamps**

- Thermobarb® barbed fittings
- Cam operated couplings
- Oetiker® ear type clamps
- Kwik Clamp™ nylon double bond hose clamps
- Worm gear clamps

**Cutting Tools Available!**

**Meet Some of NewAge Industries’ Owners**

Through an Employee Stock Ownership Plan (ESOP), we’re part owners in the company, and that makes your satisfaction an investment in our future.

**ESOP Employees Owned for Your Benefit**

- **Molly Doheny**
  - Human Resources Manager/Owner
  - 4 years

- **Randy Decker**
  - Graphic & Web Designer/Owner
  - 22 years

- **Bunna Soth**
  - Silicone Molding/Owner
  - 11 years
Add length suffix to part number when ordering. Example: 100 ft. of .125” I.D. x .188” O.D. ester tubing is part number 200 0152-100.

Working pressures are calculated from burst testing using a 3:1 safety factor. Application testing is recommended.

Cut coils are available from coils of 100 ft. or less; charges apply — call for details. Coils over 100 ft. are sold by standard coil length only. Due to the coil diameter, some larger sizes must ship via truck.

Tolerances: ID & OD ±3% but not less than ±.005”.

BOLD indicates the critical dimension for fittings application.

### Transparent Polyurethane Tubing

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>ID (IN.)</th>
<th>OD (IN.)</th>
<th>WALL (IN.)</th>
<th>STANDARD LENGTH (FT.)</th>
<th>WORKING PSI AT 70°F</th>
<th>LBS. PER 100 FT. ESTER</th>
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</table>

Add length suffix to part number when ordering. Example: 100 ft. of .125” I.D. x .188” O.D. ester tubing is part number 200 0152-100.

Working pressures are calculated from burst testing using a 3:1 safety factor. Application testing is recommended.

Cut coils are available from coils of 100 ft. or less; charges apply — call for details. Coils over 100 ft. are sold by standard coil length only. Due to the coil diameter, some larger sizes must ship via truck.

Tolerances: ID & OD ±3% but not less than ±.005”.

BOLD indicates the critical dimension for fittings application.

More NewAge Industries’ Owners

Did you know . . . ?

We successfully undergo multiple customer audits each year.

---

**ESOP** Employee Owned for Your Benefit

Chris Boytim  
Supplier Quality Manager/Owner  
20 years

Nary Seng  
Silicone Molding/Owner  
8 years

Thai Va  
Silicone Manufacturing/Owner  
1 year

Kathy Colon  
Silicone Molding/Owner  
5 years

Peter Chao  
Silicone Manufacturing/Owner  
17 years

Dan Tropea  
Director of Supply Chain/Owner  
3 years
Urebrade®

Transparent Braid Reinforced Polyurethane Hose

- Open mesh polyester braiding incorporated within the wall of flexible, ether-based polyurethane
- Made from non-toxic raw ingredients conforming to FDA standards
- Raw materials are listed by the National Sanitation Foundation (NSF 61) for use with potable water
- Offers much greater pressure capability than unreinforced polyurethane tubing
- Resistant to weathering, tearing, impact, abrasion, radiation exposure, oils, greases, and fuels
- Wide range of temperature resistance: -90°F to 175°F
- Free of DEHP, phthalates, BPA and conflict minerals
- RoHS compliant
- Naturally transparent for visual contact with the flow

Notes

†Hydrolytic Stability — UREBRADE is supplied in an ether formulation, making it resistant to attack from moisture and fungi. The raw materials used in UREBRADE are listed by the National Sanitation Foundation (NSF 61).

Where applications involve repeated flexing, heavy vibration, or abrasion, UREBRADE offers superior service life over other materials.

Ester-based UREBRADE is available through minimum order — call for details.

††Due to additives in today’s gasoline and petroleum products, field testing should be performed.

For easy identification, transparent UREBRADE is imprinted with the trademarked name.

Physical Properties**

- Hardness, Shore A ≤5 85
- Tensile Strength, psi 5500
- Elongation at Break, % 580
- Brittle Temperature, °F -90
- Max. Operating Temperature, °F 175

**Values listed are typical for the material used in manufacture, except where noted, and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application.

PART NO.  ID (IN.)  OD (IN.)  WALL (IN.)  STANDARD LENGTH  WORKING PSI AT 70°F  BEND RADIUS  LBS. PER 100 FT.
220 0072  .250  .470  .110  50, 100  250  .750  6.04
220 0149  .375  .630  .127  50, 100  190  .750  9.78
220 0226  .500  .750  .125  25, 50, 100  150  1.500  11.92
220 0303  .625  .905  .140  100  130  2.000  16.34
220 0380  .750  1.025  .137  50, 100  100  3.000  18.62
220 0457  1.000  1.300  .150  25, 50, 100  80  3.500  26.32
220 0534  1.250  1.710  .230  50, 100  75  4.000  51.94
220 0611  1.500  1.930  .215  50, 100  50  5.500  56.26
220 0688  2.000  2.500  .250  100  40  7.500  85.82

Add length suffix to part number when ordering. Example: 100 ft. of .250” I.D. x .470” O.D. hose is part number 220 0072-100.

Working pressures are calculated from burst testing using a 4:1 safety factor. Application testing is recommended.

Cut coils available; charges apply — call for details.

Due to the coil diameter, some larger sizes must ship via truck.

Recommended Fittings & Clamps

- Thermobarb® barbed fittings
- Cam operated couplings
- Oetiker® ear type clamps
- Kwik Clamp™ nylon double bond hose clamps
- Worm gear clamps

Cutting Tools Available!