Silicone tubing has long been used in the medical field, as it meets that industry's requirements of cleanliness and non-toxicity. Another of silicone's major features — resistance to extreme temperature variations — has enabled its use in applications where a flexible tubing is needed to handle temperatures not possible with other plastics or rubbers.

Being a rubber-like thermoset material, silicone tubing and hose is extremely pliable and elastic, and it is not altered by the effects of weather. It generally exhibits inertness toward U.V., radiation, and ozone making it an excellent choice for electrically-associated applications.

NewAge® Industries offers a broad line of tubing and hose products made from this versatile material, including platinum cured products to ensure the least possible extractables. Our manufacturing clean room is designed to produce products particularly suited to medical and pharmaceutical applications, and our industrial grades offer exceptional performance at relatively lower costs. NewAge Industries also offers a full-vacuum-rated silicone hose to meet needs such as chemical tank suctioning.

**Note:** NewAge Industries does not produce or sell human-implantable silicone products.

### Applications
- Adhesive Lines
- Aerospace*  
- Appliances  
- Automotive  
- Beverage & Dairy Service  
- Blood & Biological Fluid Handling  
- Cell Culturing  
- Chemical Transfer  
- Clean Rooms  
- Computers  
- Deionized Water Transfer  
- Dialysis  
- Duplicating Equipment  
- Fermenter Lines  
- Food Handling  
- Gaskets, Seals, & ‘O’-Rings  
- Hot Fill & Vacuum Systems  
- Insulation Sleevng  
- I.V. Administration  
- Laboratory  
- Liquid Resin Feeds  
- Medical & Dental Equipment  
- Peristaltic Pumps  
- Personal Care Products  
- Pharmaceutical Processing  
- Protective Jacketing  
- Sterile Bottle Filling  
- Stirring Vessels  
- Surgical Drains  
- Thermal Protection  
- Vaccine Transfer  
- Viscous Material Handling  
- More

*See Terms and Conditions Agreement for Limitations*
Silicone Tubing

- Made from FDA-sanctioned ingredients
- Able to resist extreme temperature variation: -100°F to 500°F†
- Translucent natural color for visual contact with the flow
- Resilient, stretchable, and resistant to compression set
- Odorless, tasteless, and inert
- Good electrical and weatherability properties — resists U.V., ozone, gases, and moisture
- Certified by the National Sanitation Foundation (NSF-51) for food equipment materials†

Notes

The most outstanding properties of SILCON are its flexibility and resistance to temperature extremes. These, plus its good electrical properties and ability to self-extinguish, make SILCON an excellent choice for appliances and computers.

Peroxide-cured SILCON contains no sulphur or other acid-producing chemicals, thereby eliminating the possibility of staining, corroding, or deteriorating materials it contacts. It is extremely resistant to ozone and U.V. over long time periods.

Care is recommended in the selection of fittings and clamps for SILCON as sharp barbed fittings or unlined metal clamps could tear into the tubing wall and possibly cause a failure.

SILCON may be low pressure steam sterilized in-line or autoclaved at up to 250°F in a normal autoclaving cycle. However, if exposed to repeated steam sterilization or long-term high temperature or pressure, silicone will eventually relax and become gummy. It should then be replaced.

Colors for industrial applications are available through minimum order — call for details.

SILCON is not recommended for implantable or in-body uses or for continuous steam applications.

Physical Properties**

- Hardness, Shore A ±5 50
- Tensile Strength, psi 1100
- Elongation at Break, % 375
- Brittle Temperature, °F -100
- Max. Operating Temperature, °F 500
- †Max. Operating Temperature for NSF, °F 350
- Comp. Set, 22 hrs. at 177°F, % 35
- Tear Resistance (ppi minimum) 100

Add length suffix to part number when ordering. Example: 100 ft. of 1/16” I.D. x 1/8” O.D. tubing is part number 280 0084-100.

*BOLD indicates the critical dimension for fittings application.

Recommended Fittings & Clamps

- Thermobarb® barbed fittings (see page 4)
- Oetiker® ear type clamps
- Kwik Clamp™ nylon double bond hose clamps
- Worm gear clamps

Custom Services

- Cut
- Size
- Color
- Hardness
- And More

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

www.newageindustries.com
Silicone elastomer meets USP Class VI requirements
Manufactured under good manufacturing procedures in a controlled environment
Reusable — will withstand repeated sterilization
Nonreactive to body tissues and fluids
Translucent natural color for visual contact with the flow
Odorless, tasteless, and inert
All ingredients are non-toxic and FDA-sanctioned for use with food contact surfaces
May be used on peristaltic pumps

Notes
SILCON MEDICAL tubing is made under good manufacturing procedures and conforms to the biocompatibility requirements of USP Class VI. SILCON MEDICAL’s surface properties resist sticking and encrustation, and will not support bacteria growth. The tubing is soft, pliable, and contains no plasticizers which could leach out, causing flow contamination or tube hardening.

Care is recommended in the selection and application of fittings and clamps as sharp barbed fittings or unlined metal clamps could tear into the tubing wall.

If exposed to repeated steam sterilization or long-term high temperature or pressure, silicone will eventually relax and become gummy. It should then be replaced.

Peroxide-cured SILCON MEDICAL tubing is supplied in individual, non-sterile, heat-sealed polybags and should be sterilized prior to use.

SILCON MEDICAL is not recommended for implantable or in-body uses or for continuous steam applications.

Physical Properties**

- Hardness, Shore A ±5 60
- Tensile Strength, psi 1200
- Elongation at Break, % 425
- Tear Resistance, Die B 120
- Brittle Temperature, °F -100
- Maximum Operating Temperature, °F 400
- Comp. Set, 22 hrs. at 350°F, % 35

*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.

Recommended Fittings & Clamps
- Thermobarb® barbed fittings (see page 4)
- Oetiker® ear type clamps
- Kwik Clamp™ nylon double bond hose clamps
- Worm gear clamps

Custom Services
- Size
- Hardness
- Color
- And More

Call for more information 800-506-3924

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.

John-Paul Deitz
Test Engineer/Owner 1 year

Seden Ken
Silicone Molding/Owner 1 year

Joel DeVine
Lead Quality Technician/Owner 10 years

Meet Some of NewAge Industries’ Owners

ESOP Employee Owned for Your Benefit

www.newageindustries.com
Silicone elastomer meets USP Class VI requirements
Manufatured strict good manufacturing procedures in a controlled environment
Platinum cured for the highest degree of purity (least extractables)
Reusable — will withstand repeated sterilization†
Nonreactive to body tissues and fluids
Applications include pharmaceutical, biomedical, health and beauty, food, and beverage handling

Notes
SILCON MED-X tubing is made under good manufacturing procedures and conforms to the biocompatibility requirements of USP Class VI. SILCON MED-X's surface properties resist sticking and encrustation and will not support bacteria growth. The tubing is soft, pliable, and contains no plasticizers which could leach out, causing flow contamination or tube hardening. Other sizes and 60A durometer material are also available — call for details.

Care is recommended in the selection and application of fittings and clamps as sharp barbed fittings or unlined metal clamps could tear into the wall.

†If exposed to repeated steam sterilization or long-term high temperature or pressure, silicone will eventually relax and become gummy. It should then be replaced.

SILCON MED-X is supplied in individual, heat-sealed polybags and should be sterilized prior to use.

SILCON MED-X is not recommended for implantable or in-body uses or for continuous steam applications.

Physical Properties**

<table>
<thead>
<tr>
<th>Hardness, Shore A ±5</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength, psi</td>
<td>1100</td>
</tr>
<tr>
<td>Elongation at Break, %</td>
<td>650</td>
</tr>
<tr>
<td>Modulus at 100 %</td>
<td>120</td>
</tr>
<tr>
<td>Tear Resistance, Die B ppi</td>
<td>200</td>
</tr>
<tr>
<td>Temperature Range, °F</td>
<td>-100 to 400</td>
</tr>
<tr>
<td>Temperature Range, °C</td>
<td>-73.3 to 204.4</td>
</tr>
<tr>
<td>Compression Set, %</td>
<td>35</td>
</tr>
</tbody>
</table>

**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.

Recommended Fittings & Clamps

- Thermobarb® barbed fittings (see below)
- Oetiker® ear type clamps
- Kwik Clamp™ nylon double bond hose clamps
- Worm gear clamps

FDA-APPROVED POLYPROPYLENE Y FITTINGS

- Precision molded of FDA-approved polypropylene copolymer
- Meets USP Class VI standards and compliant with FDA 21 CFR 177.1520
- Longer, more tapered lead barb slides easily into tubing and provides a secure attachment and reduced leakage
- Sterilizable by autoclave or gamma radiation
- Free of animal-derived ingredients
- No mold parting lines or flashing
- RoHS compliant
- Less costly—ideal for single-use/disposable tubing assemblies
- Many other barbed fittings are available—see the Barbed Fittings catalog

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>SIZE (IN.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>502 7106</td>
<td>1/4</td>
</tr>
<tr>
<td>502 7120</td>
<td>3/8</td>
</tr>
<tr>
<td>502 7148</td>
<td>1/2</td>
</tr>
</tbody>
</table>
Open mesh polyester braiding incorporated within the walls of silicone tubing
Made from FDA-sanctioned ingredients
Translucent natural color for visual contact with the flow
Able to resist extreme temperature variation: -80°F to 350°F
Odorless, tasteless, and inert
Excellent weatherability properties — resists U.V., ozone, gases, moisture, and extreme temperatures
Offers far higher pressure capabilities than similarly-sized unreinforced silicone tubing
Certified by the National Sanitation Foundation (NSF-51) for food equipment materials

Notes
The construction of SILBRADE enables silicone tubing to handle increased pressure applications. SILBRADE offers outstanding resistance to temperature extremes and is made from FDA-sanctioned ingredients.

WORM DESIGN & CONSTRUCTION SILBRADE also allows excellent bend radii and permits installation in restricted spaces without impeding flow.

SILBRADE, a peroxide-cured product, contains no sulphur or other acid-producing chemicals thereby eliminating the possibility of staining, corroding, or deteriorating other materials it contacts. It is also resistant to ozone and U.V. over long time periods.

Care is recommended in the selection of fittings and clamps, as sharp barbed fittings or unlined metal clamps could tear into the hose wall and possibly cause a failure, especially at elevated pressures.

SILBRADE may be low pressure steam sterilized in-line or autoclaved at up to 250°F in a normal autoclaving cycle. However, if exposed to repeated steam sterilization or long-term high temperature or pressure, silicone will eventually relax and become gummy. It should then be replaced.

SILBRADE is not recommended for implantable or in-body uses or for continuous steam applications.

Physical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness, Shore A ±5 – Liner</td>
<td>70</td>
</tr>
<tr>
<td>Hardness, Shore A ±5 – Cover</td>
<td>60</td>
</tr>
<tr>
<td>Tensile Strength, psi</td>
<td>1000</td>
</tr>
<tr>
<td>Elongation at Break, %</td>
<td>350</td>
</tr>
<tr>
<td>Brittle Temperature, °F</td>
<td>-80</td>
</tr>
<tr>
<td>Maximum Operating Temperature, °F</td>
<td>350</td>
</tr>
</tbody>
</table>

**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.
Medical Grade Braid Reinforced Silicone Hose

- Open mesh polyester braiding incorporated within the walls of silicone tubing
- Silicone elastomer meets USP Class VI requirements
- Translucent natural color for visual contact with the flow
- Able to resist extreme temperature variation: -80°F to 350°F
- Odorless, tasteless, and inert
- All ingredients are non-toxic and FDA-sanctioned for use with food contact surfaces
- Manufactured under good manufacturing procedures in a controlled environment

Notes

SILBRADE MEDICAL’s construction consists of a liner of silicone elastomer, an open polyester braid reinforcing layer, and a cover layer of silicone elastomer. Good manufacturing procedures, including lot traceability, are applicable to all Class VI ingredients. SILBRADE MEDICAL is a peroxide-cured product.

The hose’s smooth bore, coupled with its resistance to allow material to adhere to the tube wall, facilitates easy cleaning and system purging.

SILBRADE MEDICAL may be low pressure sterilized in-line or autoclaved up to 250°F in a normal autoclaving cycle. If exposed to repeated steam sterilization or long-term high temperature or pressure, silicone will eventually relax and become gummy. It should then be replaced.

Care is recommended in the selection and application of fittings and clamps, as sharp barbed fittings or unlined clamps could tear into the hose wall and possibly cause a failure, especially at elevated pressures.

Peroxide-cured SILBRADE MEDICAL hose is supplied in individual, non-sterile, heat-sealed polybags and should be sterilized prior to use.

Platinum-cured, braid-reinforced silicone hose is available; see next page.

SILBRADE MEDICAL is not recommended for implantable or in-body uses or for continuous steam applications.

Physical Properties**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>ID (IN.)</th>
<th>OD (IN.)</th>
<th>WALL (IN.)</th>
<th>WORKING PSI AT 70°F</th>
<th>BURST PSI AT 70°F</th>
<th>LBS. PER 100 FT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>291 0257</td>
<td>3/16</td>
<td>.447</td>
<td>.130</td>
<td>216</td>
<td>648</td>
<td>7</td>
</tr>
<tr>
<td>291 0334</td>
<td>1/4</td>
<td>.520</td>
<td>.135</td>
<td>208</td>
<td>624</td>
<td>9</td>
</tr>
<tr>
<td>291 0411</td>
<td>5/16</td>
<td>.592</td>
<td>.140</td>
<td>183</td>
<td>549</td>
<td>11</td>
</tr>
<tr>
<td>291 0488</td>
<td>3/8</td>
<td>.655</td>
<td>.140</td>
<td>166</td>
<td>498</td>
<td>13</td>
</tr>
<tr>
<td>291 0565</td>
<td>1/2</td>
<td>.800</td>
<td>.150</td>
<td>141</td>
<td>423</td>
<td>17</td>
</tr>
<tr>
<td>291 0719</td>
<td>3/4</td>
<td>1.100</td>
<td>.175</td>
<td>91</td>
<td>273</td>
<td>28</td>
</tr>
<tr>
<td>291 0873</td>
<td>1</td>
<td>1.380</td>
<td>.190</td>
<td>75</td>
<td>225</td>
<td>36</td>
</tr>
</tbody>
</table>

Sold by standard coil length only (25 ft.). Add length suffix to part number when ordering.

Example: 25 ft. of 3/16” I.D. hose is part number 291 0257-25.

*Burst pressures can be expected to decrease by at least 20% for each 200°F increase up to 350°F.

BOLD indicates the critical dimension for fittings application.

Recommended Fittings & Clamps

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

Custom Services

- Cut
- Overbraid
- Size
- And More

Call for more information

800-506-3924

More NewAge Industries’ Owners

Did you know…?

Our number of Technical Sales Representatives is twice the industry average.

Chris Mercado
Warehouse/Owner
3 years

Lauren Winokur
Buyer/Planner/Owner
3 years

Jeff Johnson
Director of Software Solutions/Owner
24 years

www.newageindustries.com
Platinum cured Braid Reinforced Silicone Hose

- Platinum cured for the highest degree of purity
- Non-toxic ingredients manufactured from FDA compliant materials
- Listed by the National Sanitation Foundation (NSF-51) for food equipment materials
- Odorless, tasteless, and inert
- Open mesh polyester braiding incorporated within walls of silicone offers increased pressure capabilities
- Able to resist extreme temperature variation: -100°F to 400°F
- Translucent natural color for visual contact with the flow
- Kink resistant yet highly flexible
- Reusable — will withstand repeated sterilization†
- Excellent weatherability properties — resists U.V., ozone, gases, moisture, and extreme temperatures
- Manufactured in a controlled environment

Notes

The construction of SILBRADE PLATINUM involves a liner of silicone elastomer, an open polyester braid reinforcing layer, and a covering of silicone elastomer. The braid reinforcement allows for increased pressure usage over unreinforced silicone tubing. SILBRADE PLATINUM contains no plasticizers. SILBRADE PLATINUM’s surface properties resist encrustation and will not support bacteria growth. It is nonreactive to body tissues and fluids.

Care is recommended in the selection and application of fittings and clamps as sharp barbed fittings or unlined metal clamps could tear into the hose wall, possibly leading to hose failure.

†SILBRADE PLATINUM should not be used for steam transfer. Steam-for-sterilization is the only recommended exposure to steam. If exposed to repeated steam sterilization or long term high temperature or pressure, silicone will eventually become gummy. It should then be replaced.

SILBRADE PLATINUM is supplied in individual, heat-sealed polybags.

SILBRADE PLATINUM is not recommended for implantable or in-body uses or for continuous steam applications.

Physical Properties**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>ID (IN.)</th>
<th>OD (IN.)</th>
<th>WORKING PSI AT 70°F</th>
<th>BURST PSI AT 70°F*</th>
<th>LBS. PER 100 FT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>292 1023</td>
<td>1/4</td>
<td>1/2</td>
<td>140</td>
<td>550</td>
<td>7.7</td>
</tr>
<tr>
<td>292 1044</td>
<td>3/8</td>
<td>5/8</td>
<td>140</td>
<td>550</td>
<td>10.2</td>
</tr>
<tr>
<td>292 1065</td>
<td>1/2</td>
<td>7/8</td>
<td>105</td>
<td>420</td>
<td>21.1</td>
</tr>
<tr>
<td>292 1086</td>
<td>3/4</td>
<td>1-1/8</td>
<td>90</td>
<td>350</td>
<td>28.7</td>
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<tr>
<td>292 1107</td>
<td>1</td>
<td>1.405</td>
<td>60</td>
<td>225</td>
<td>40.1</td>
</tr>
</tbody>
</table>

Sold by standard length (50 ft). Add length suffix to part number when ordering. Example: 50 ft. of 1/4” I.D. Silbrade Platinum is part number 292 1023-50.

BOLD indicates the critical dimension for fittings application.

Recommended Fittings & Clamps

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

Custom Services

- Cut
- Size
- Overbraid
- And More

Call for more information 800-506-3924

More NewAge Industries’ Owners

Did you know . . . ?

Our overall product quality has averaged 99.8% defect free over the last seven years.

Matt Bauer
Production Mgr./Owner 10 years

Jerry Prieto
Warehouse/Owner 4 years

Thanh Ma
Silicone Molding/Owner 3 years

ESOP Employees Owned for Your Benefit

www.newageindustries.com
Polyester & Wire Reinforced Platinum Cured Silicone Suction Hose

- Polyester woven fabric and spiral 316 stainless steel wire reinforcement in walls of silicone elastomer
- Offers full vacuum capability at high temperatures (29.9 in./Hg.)
- Able to resist extreme temperature variation: -80°F to 350°F
- Odorless, tasteless, and inert
- All ingredients are non-toxic and FDA-sanctioned (CFR 177.2600) for use in food contact surfaces
- Crush and kink resistant yet flexible
- Manufactured in a controlled environment on dedicated equipment

Made in U.S.A.

Notes

SILVAC offers the excellent temperature resistance of silicone in a vacuum-rated hose (29.9 in./Hg at 70°F). The hose construction allows strong vacuum at elevated temperatures; sample testing is recommended.

The construction consists of mandrel-wrapped layers of polyester-reinforced silicone elastomer incorporated around a spiral-wound stainless steel reinforcing wire, making SILVAC crush and kink resistant yet flexible. SILVAC is a platinum-cured hose, thus reducing extractables.

SILVAC may be low pressure steam sterilized in-line or autoclaved up to 250°F in a normal autoclaving cycle. Its smooth liner facilitates easy cleaning and system purging. However, if exposed to repeated steam sterilization or long-term high temperature or pressure, silicone will eventually relax and become gummy. It should then be replaced.

Care is recommended in the selection and application of fittings and clamps as sharp barbed fittings or unlined metal clamps could tear into the hose wall and possibly cause a failure.

Each length of SILVAC is individually packaged in a heat-sealed polybag and should be sterilized prior to use.

SILVAC is not recommended for implantable or in-body uses or for continuous steam applications.

Recommended Fittings & Clamps

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

Physical Properties*

<table>
<thead>
<tr>
<th>Liner</th>
<th>Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness, Shore A ±5</td>
<td>70</td>
</tr>
<tr>
<td>Tensile Strength, psi</td>
<td>1200</td>
</tr>
<tr>
<td>Elongation at Break, %</td>
<td>350</td>
</tr>
<tr>
<td>Brittle Temperature, °F</td>
<td>-80</td>
</tr>
</tbody>
</table>

**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.) WORKING PSI AT 70°F BURST PSI AT 70°F LBS. PER 100 FT.

| 293 0081 | 1/2 | .92 | 150 | 600 | 29 |
| 293 0158 | 3/4 | 1.17 | 150 | 600 | 38 |
| 293 0235 | 1 | 1.42 | 150 | 600 | 50 |
| 293 0389 | 1-1/2 | 1.92 | 150 | 600 | 70 |
| 293 0543 | 2 | 2.42 | 125 | 500 | 91 |

Sold by standard length only (12 ft). Add length suffix to part number when ordering. Example: 12 ft. of 1/2" I.D. Silvac is part number 293 0081-12.

*The burst pressure can be expected to decrease by at least 20% for each 200°F increase up to 350°F. BOLD indicates the critical dimension for fittings application.

Custom Services

- Color
- Heat-Form
- And More

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