



Versilon™ C-210-A

Multipurpose Fuel and Oil Transfer Tubing

Exceptional Properties

Our rigidly controlled manufacturing process makes Versilon™ C-210-A tubing the flexible polyurethane tubing that has consistently tight tolerances from lot to lot. Made of tough ester-based polyurethane, Versilon C-210-A tubing's clarity, high tear strength and excellent abrasion resistance make it ideal for many applications, including fuel and lubricant lines, pneumatic lines, abrasive product transfer and cable jacketing. It also offers exceptional resistance to oils, greases, fuels and many chemicals.

Able to withstand rugged daily use, Versilon C-210-A tubing resists weathering and can be safely used in temperatures ranging from -100°F (-73°C) to 200°F (93°C). It meets FDA 21 CFR, 177.1680 and 177.2600 criteria for food and beverage use and is also available in ether-based and medical-grade formulations.

Excellent Stability Even When Exposed to Oils, Greases and Fuels

While many rubber and plastic materials exhibit resistance to certain solvents, oils and chemicals, Versilon tubing will resist a much wider range of substances.

Plasticizer extraction leading to embrittlement is one of the most frequent causes of failure when flexible tubings are exposed to harsh chemicals. Versilon C-210-A tubing is plasticizer-free and remains flexible even when cycled through temperature extremes.

Easy and Secure Attachment to Fittings

Versilon C-210-A tubing's precision tolerances and high elasticity provide the user with an easy, worry-free attachment to fittings.

Features and Benefits

- Consistently tight dimensional tolerances
- Excellent abrasion and tear resistance
- Excellent resistance to oils, greases and fuels
- Retains flexibility in sub-zero environments
- High tear resistance
- Meets FDA criteria

Typical Applications

- Food and cosmetic processing
- Abrasive and viscous slurry transfer
- Lubrication and degreaser dispensing
- Pellet and powder transfer
- Pneumatic sensory devices
- Instrumentation control lines
- Coolant recovery systems

Versilon™ C-210-A

| Part Number | I.D. (in.) | O.D. (in.) | Wall Thickness (in.) | Length (ft.) | Min. Bend Radius (in.) | Max. Working Pressure | | Vacuum Rating In. of Mercury | |
|-------------|---------------|---------------|-------------------------|-----------------|------------------------------|--------------------------|--------------------|---------------------------------|----------|
| | | | | | | at 73°F (psi)* | at 175°F (psi)* | at 73°F | at 175°F |
| AEM02002 | 1/16 | 1/8 | 1/32 | 100 | 3/16 | 70 | 40 | 29.9 | 29.9 |
| AEM02006 | 1/8 | 3/16 | 1/32 | 100 | 1/2 | 45 | 25 | 29.9 | 29.9 |
| AEM02007 | 1/8 | 1/4 | 1/16 | 100 | 5/16 | 74 | 45 | 29.9 | 29.9 |
| AEM02011 | 3/16 | 1/4 | 1/32 | 100 | 1 | 34 | 19 | 29.9 | 29.9 |
| AEM02012 | 3/16 | 5/16 | 1/16 | 100 | 5/8 | 56 | 33 | 29.9 | 29.9 |
| AEM02013 | 3/16 | 3/8 | 3/32 | 100 | 7/16 | 70 | 44 | 29.9 | 29.9 |
| AEM02016 | 1/4 | 5/16 | 1/32 | 100 | 1-9/16 | 28 | 12 | 20.0 | 5.0 |
| AEM02017 | 1/4 | 3/8 | 1/16 | 100 | 15/16 | 42 | 25 | 29.9 | 29.9 |
| AEM02018 | 1/4 | 7/16 | 3/32 | 100 | 11/16 | 58 | 28 | 29.9 | 29.9 |
| AEM02019 | 1/4 | 1/2 | 1/8 | 100 | 9/16 | 70 | 45 | 29.9 | 29.9 |
| AEM02022 | 5/16 | 7/16 | 1/16 | 100 | 1-15/16 | 36 | 22 | 29.9 | 29.9 |
| AEM02027 | 3/8 | 1/2 | 1/16 | 100 | 1-3/4 | 34 | 19 | 29.9 | 25.0 |
| AEM02028 | 3/8 | 9/16 | 3/32 | 100 | 1-5/16 | 45 | 27 | 29.9 | 29.9 |
| AEM02029 | 3/8 | 5/8 | 1/8 | 100 | 1-1/16 | 54 | 33 | 29.9 | 29.9 |
| AEM02033 | 7/16 | 5/8 | 3/32 | 100 | 1-11/16 | 40 | 21 | 29.9 | 29.9 |
| AEM02034 | 7/16 | 11/16 | 1/8 | 100 | 1-3/8 | 49 | 29 | 29.9 | 29.9 |
| AEM02036 | 1/2 | 5/8 | 1/16 | 100 | 2-7/8 | 26 | 14 | 20.0 | 5.0 |
| AEM02037 | 1/2 | 11/16 | 3/32 | 100 | 2-1/8 | 36 | 18 | 29.9 | 29.9 |
| AEM02038 | 1/2 | 3/4 | 1/8 | 100 | 1-3/4 | 46 | 27 | 29.9 | 29.9 |
| AEM02044 | 5/8 | 3/4 | 1/16 | 100 | 4-1/8 | 24 | 11 | 10.0 | 5.0 |
| AEM02045 | 5/8 | 13/16 | 3/32 | 100 | 3 | 32 | 16 | 29.9 | 15.0 |
| AEM02046 | 5/8 | 7/8 | 1/8 | 100 | 2-3/8 | 38 | 21 | 29.9 | 29.9 |
| AEM02052 | 3/4 | 15/16 | 3/32 | 100 | 4 | 26 | 13 | 15.0 | 5.0 |
| AEM02053 | 3/4 | 1 | 1/8 | 100 | 3-1/4 | 33 | 20 | 29.9 | 25.0 |
| AEM02059** | 7/8 | 1-1/8 | 1/8 | 100 | 4-1/8 | 30 | 18 | 29.9 | 20.0 |
| AEM02062 | 1 | 1-1/4 | 1/8 | 100 | 5-1/8 | 28 | 14 | 15.0 | 10.0 |

* Working pressures are calculated at a 1:5 ratio relative to burst pressure using ASTM D1599.

** Made to order, minimums will apply.

Typical Physical Properties

| Property | ASTM Method | Value or Rating |
|---|------------------------|------------------------|
| Durometer Hardness (Shore A), 15 Sec | D2240 | 82 |
| Tensile Strength, psi (MPa) | D412 | 6,050 (41.7) |
| Ultimate Elongation, % | D412 | 500 |
| Tear Resistance, lb-f/in. (kN/m) | D1004 D624 Die C | 475 (83.1) 400 (70) |
| Specific Gravity | D792 | 1.20 |
| Water Absorption, % 24 hrs. @ 23°C | D570 | 1.12 |
| Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs. | D395 Method B | 68 |
| Brittleness Temp., °F (°C) | D746 | -100 (-73) |
| Maximum Recommended Operating Temp., °F (°C) | - | 200 (93) 175 (79) |
| Dielectric Strength, v/mil (kV/mm) | D149 | 330 (12.9) |
| Tensile Stress @ 100% Elongation, psi (MPa) | D412 | 800 (5.5) |
| @ 300% Elongation, psi (MPa) | | 1,500 (10.4) |
| Tensile Set, % | D412 | 98 |
| Color | - | Natural |

Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

The values listed for working and burst pressures are derived from tests conducted under controlled laboratory conditions. Many factors will reduce the tubing's ability to withstand pressures, including temperature, chemical attack, stress, pulsation and the attachment to fittings. It is imperative that the user conduct tests simulating the conditions of the application prior to specifying the tubing for use.

VERSILON™ C-210-A TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL.



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NOTE: The data and details given in this document are correct and up to date. This document is intended to provide information about the product and possible applications. This document is not the product specification and does not provide specific features, nor does it guarantee product performance in specific applications. Saint-Gobain cannot anticipate or control the conditions of the field and for this reason strongly recommends that practical tests are conducted to ensure that the product meets the requirements of a specific application.

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