VERSILON®
Engineered Versatility



Versilon® 2001 Tubing

PLASTICIZER-FREE CHEMICAL RESISTANT PUMP TUBING



Superior Performance in a Broad Range of Applications

Versilon® 2001 tubing is uniquely engineered to provide flexibility, chemical resistance and extended pump life in a clear, plasticizer/oil-free tubing product. It is ideal for a broad range of demanding applications including peristaltic pump systems, soap and detergent dispensing, ink transfer, water purification lines, food and beverage, and chemical transfer.

Outperforms PVC in Chemical Resistance

Versilon® 2001 tubing is resistant to a wide range of fluids that typically destroy PVC products. Its chemical resistance allows it to be used in applications with aggressive chemicals such as polar solvents, benefiting the user with less downtime and tubing changes. Versilon® 2001 tubing yields a longer service life and does not degrade over time, unlike other flexible tubing products (see "Relative Chemical Resistance Chart" on back).

Additional Product Features

Upon incineration, many tubing products release hazardous by-products such as hydrogen chloride gas, but when properly incinerated, Versilon® 2001 tubing does not. Since it contains no plasticizers or oils, this product will not yield any taste, which makes it an ideal choice for food and beverage applications with strict taste requirements and will help ensure accurate results from analytical instrument tests.

Typical Applications

- Chemical transfer
- Peristaltic pumps
- Soap and detergent dispensing
- Ink transfer
- Water purification lines
- Food and beverage
- Analytical instruments
- Ideal for condensers, incubators, desiccators, gas and drain lines

Features and Benefits

- Plasticizer and oil free – does not contaminate fluids
- Superior flex life in peristaltic pumps
- Chemically resistant to a wide range of fluids
- Temperature resistant from -108°F to 135°F
- Clear for easy visual flow monitoring
- Meets the requirements of FDA 21 CFR, 177.2600 for food contact applications

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Part Number	ID	OD	Wall Thickness	Length	Min. Bend Radius	Max. Working Pressure	Vacuum Rating
	(in.)	(in.)	(in.)	(ft.)	(in.)	73°F (psi)*	inHg at 73°F
AE300003	1/16	3/16	1/16	50	1/4	45	29.9
AE300007	1/8	1/4	1/16	50	1/2	30	29.9
AE300012	3/16	5/16	1/16	50	1/2	22	29.9
AE300017	1/4	3/8	1/16	50	1	17	29.9
AE300022	5/16	7/16	1/16	50	1-1/2	14	25
AE300027	3/8	1/2	1/16	50	2	12	15
AE300038	1/2	3/4	1/8	50	1-1/2	16	29.9
AE300046	5/8	7/8	1/8	50	2-1/2	13	25
AE300053	3/4	1	1/8	50	3	11	15
AE300064	1	1-3/8	3/16	50	3-3/4	13	17

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

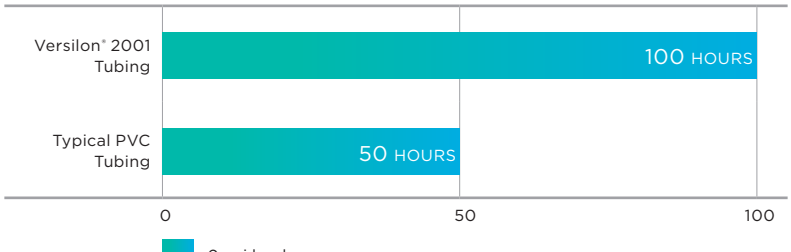
Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness (Shore A), 15 sec	D2240-03	69
Tensile Strength, psi (MPa)	D412-98	800 (5.51)
Ultimate Elongation, %	D412-98	500
Tear Resistance, lb-f/in. (kN/m)	D1004-03	140 (24.5)
Specific Gravity	D792-00	0.88
Water Absorption, % 24 hrs @ 23°C	D570-98	0.04
Compression Set Constant Deflection, % @ 158°F (70°C) for 22 hrs	D395-03 Method B	40
Brittleness Temp., °F (°C)	D746-98	-108 (-78)
Max. Recommended Operating Temp.°F (°C)	—	135 (57)
Low Temp. Flexibility, °F (°C)	D380-94	-100 (-73)
Dielectric Strength, V/mil (kV/mm)	D149-97	530 (20.9)
Tensile Modulus @ 100% Elongation, psi (MPa)	D412-98	240 (1.65)
Tensile Set, %	D412-98	110
Color	—	Clear

Unless otherwise noted, all tests were conducted at room temperature 73°F (23°C). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

Peristaltic Pump Tubing Life

The table below depicts hours until failure of 1/4" ID x 3/8" OD tubing. In each case, a 3-roller pump head operating at 600 rpm under room temperature 73°F (23°C). Tubing failure is measured in hours of use prior to rupture.



The performance of tubing in peristaltic pumping applications is affected by the conditions of use and equipment utilized, along with size and wall thickness of the tubing tested. The data above is presented for information only and should not be utilized for specification purposes.

Relative Chemical Resistance Properties**

Tubing	Acids			Bases			Salts	Alcohols	Ketones
	Conc.	Med.	Weak	Conc.	Med.	Weak			
Versilon® 2001	F	E	E	F	E	E	E	E	F
Fluoroelastomers	E	E	E	U	F	F	E	F	U
Urethane	U	U	U	U	F	F	F	U	U
PVC	F	E	E	E	E	E	E	F	U
Thermoplastic Rubber	U	F	E	F	E	E	E	F	U
Neoprene	U	F	E	E	E	E	E	E	U
Nitrile Rubber	F	F	E	U	E	E	E	E	U
Silicone	U	U	U	U	F	F	F	F	U
EVA	U	F	E	F	E	E	E	E	U

E = Excellent F = Fair U = Unsatisfactory
** All tests conducted at room temperature.

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 pressure, 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.

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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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