



# Versilon™ PVDF

## Abrasion-Resistant Tubing

### Description

Produced from Kynar® Flex resin, a co-polymer material, Versilon™ PVDF tubing offers the stable characteristics of fluoropolymer tubing. In addition, it has abrasion resistance, mechanical strength and inherent high purity.

Versilon™ PVDF tubing also offers chemical compatibility in higher pH solutions, increased impact strength and better clarity than standard PVDF. These features make Versilon™ PVDF tubing ideal for use in the semi-conductor industry, pulp and paper industry, and nuclear waste processing.

### Features and Benefits

- High purity/low extractables
- High abrasion resistance
- Excellent chemical resistance
- UV and radiation resistance
- Mechanical strength and toughness
- Low permeability

### Typical Applications

- Chemical processing
- Food processing
- Nuclear waste processing
- Photovoltaic
- Pulp and paper
- Semiconductor
- Water transfer and purification

### Regulatory Compliance

- 3-A
- Meets FDA criteria

## Versilon™ PVDF

| Part Number        | ID   |       | OD   |       | Wall Thickness |      |
|--------------------|------|-------|------|-------|----------------|------|
|                    | (in) | (mm)  | (in) | (mm)  | (in)           | (mm) |
| TSPVF8-0125-031-50 | 1/16 | 1.59  | 1/8  | 3.18  | 1/32           | 0.79 |
| TSPVF8-0125-031.10 | 1/16 | 1.59  | 1/8  | 3.18  | 1/32           | 0.79 |
| TSPVF8-0187-031-50 | 1/8  | 3.18  | 3/16 | 4.76  | 1/32           | 0.79 |
| TSPVF8-0187-031.10 | 1/8  | 3.18  | 3/16 | 4.76  | 1/32           | 0.79 |
| TSPVF8-0250-062-50 | 1/8  | 3.18  | 1/4  | 6.35  | 1/16           | 1.59 |
| TSPVF8-0250-062.10 | 1/8  | 3.18  | 1/4  | 6.35  | 1/16           | 1.59 |
| TSPVF8-0250-040-50 | 8/47 | 4.32  | 1/4  | 6.35  | 1/25           | 1.02 |
| TSPVF8-0250-040.10 | 8/47 | 4.32  | 1/4  | 6.35  | 1/25           | 1.02 |
| TSPVF8-0312-062-50 | 3/16 | 4.76  | 5/16 | 7.94  | 1/16           | 1.59 |
| TSPVF8-0312-062.10 | 3/16 | 4.76  | 5/16 | 7.94  | 1/16           | 1.59 |
| TSPVF8-0375-062-50 | 1/4  | 6.35  | 3/8  | 9.53  | 1/16           | 1.59 |
| TSPVF8-0375-062.10 | 1/4  | 6.35  | 3/8  | 9.53  | 1/16           | 1.59 |
| TSPVF8-0375-031-50 | 5/16 | 7.94  | 3/8  | 9.53  | 1/32           | 0.79 |
| TSPVF8-0375-031.10 | 5/16 | 7.94  | 3/8  | 9.53  | 1/32           | 0.79 |
| TSPVF8-0437-062-50 | 5/16 | 7.94  | 7/16 | 11.11 | 1/16           | 1.59 |
| TSPVF8-0437-062.10 | 5/16 | 7.94  | 7/16 | 11.11 | 1/16           | 1.59 |
| TSPVF8-0500-062-50 | 3/8  | 9.53  | 1/2  | 12.70 | 1/16           | 1.59 |
| TSPVF8-0500-062.10 | 3/8  | 9.53  | 1/2  | 12.70 | 1/16           | 1.59 |
| TSPVF8-0625-062-50 | 1/2  | 12.70 | 5/8  | 15.88 | 1/16           | 1.59 |
| TSPVF8-0625-062.10 | 1/2  | 12.70 | 5/8  | 15.88 | 1/16           | 1.59 |
| TSPVF8-0750-062-50 | 5/8  | 15.88 | 3/4  | 19.05 | 1/16           | 1.59 |
| TSPVF8-0750-062.10 | 5/8  | 15.88 | 3/4  | 19.05 | 1/16           | 1.59 |
| TSPVF8-0875-062-50 | 3/4  | 19.05 | 7/8  | 22.23 | 1/16           | 1.59 |
| TSPVF8-0875-062.10 | 3/4  | 19.05 | 7/8  | 22.23 | 1/16           | 1.59 |

\*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 D), 1 sec            | D2240       | 65D             |
| Color                                          | —           | Clear           |
| Opacity                                        | —           | Opaque          |
| Tensile Strength, psi (MPa)                    | D412        | 2900 (20.0)     |
| Ultimate Elongation, %                         | D412        | 400             |
| Specific Gravity                               | D792        | 1.77            |
| Water Absorption, % at 73°F (23°C) for 24 hrs. | D570        | 0.03            |
| Maximum Recommended Operating Temp., °F (°C)   | —           | 250 (121)       |

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 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.



### Saint-Gobain Performance Plastics

2664 Gilchrist Road  
Akron, OH 44305  
1-800-798-1554  
Tel: (330) 798-9240  
Fax: (330) 798-6968

[www.processsystems.saint-gobain.com](http://www.processsystems.saint-gobain.com)

**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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