



# GORE™ TPE Tubing

FOR WELDABLE BIOPROCESS APPLICATIONS

## Ultra-Pure, Thermally Weldable and Sealable Tubing

### Product Description

GORE™ TPE Tubing for Weldable Bioprocess Applications (Series GF) is constructed of a proprietary thermoplastic elastomer material specifically formulated for use in pharmaceutical and bioprocess applications. This clear tubing is thermally weldable, heat sealable and has increased performance in higher temperature steam sterilization. Using GORE™ TPE Tubing is ideal for high purity fluid transfer and peristaltic pumping.

### Quality Assurance

GORE™ TPE Tubing is compounded to meet the most demanding requirements of biocompatibility and manufactured using a pharmaceutical grade thermoplastic elastomer that meets or exceeds the test requirements of the following:

- USP Class VI for Plastics
- European Pharmacopoeia 3.2.9
- FDA 21 CFR 177.2600

Critical properties are controlled throughout the manufacturing process, which operates under a quality system based on applicable current Good Manufacturing Practices (cGMP).

Forced extraction tests have shown that GORE™ TPE Tubing has low extractable content. This tubing is animal derived component free (ADCF), entirely non-toxic, and non pyrogenic.

### Materials of Construction

SEBS thermoplastic elastomer tubing

### Chemical Compatibility Guidelines

Acids		Bases		Salts	Alcohols	Organic Solvents
Strong	Weak	Strong	Weak			
Y	Y	Y	Y	Y	N	N

Y = Yes N = No



### Benefits of GORE™ TPE Tubing

- Offers improved peristaltic pump life over other weldable and sealable tubing
- Lowers the risk of contamination through reduced extractables
- Increases process yield through low preservative absorption
- Allows for higher temperature steam sterilization over other weldable and sealable tubing
- Provides easy visibility of liquids through naturally clear tubing construction

### Typical Applications

- Pharmaceutical and biotech processing
- Peristaltic pump and fluid transfer
- Filling operations
- Laboratory use
- Upstream processing



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## Typical Physical Properties

Property	ASTM Method	Specifications
Durometer hardness, Shore A	D2240	68
Modulus at 50%, psi	D412	341
Modulus at 100%, psi	D412	415
Modulus at 200%, psi	D412	534
Modulus at 300%, psi	D412	653
Modulus at 500%, psi	D412	918
Tensile strength, psi	D412	869
Specific gravity	D297	0.89
Compression set at 70°C, %	D395	56
Elongation, %	—	466
Brittleness temperature, °C (°F)	—	-67 (-88)
Max. operating temperature, °C (°F)	—	135 (275)
Color	—	Translucent
Burst Pressure Range, psi	—	50 – 120

## Connections and Fittings

GORE™ TPE Tubing is available with a variety of sanitary molded end connections. Custom line sets and molded assemblies that enable GORE™ TPE Tubing to be integrated into your bioprocess are also available and can be designed using the GORE™ STA-PURE™ Bioprocess Configurator at [www.gore.com/bioprocess-configurator/](http://www.gore.com/bioprocess-configurator/) or consult a Gore representative for details.

## Customization Options

Building on a strong heritage of technical leadership and innovation, Gore continues to meet the demands of the marketplace by offering customers the ability to customize product offerings to meet specific needs. Customization options for GORE™ TPE Tubing include:

- Bulk or coil spool packaging in 25 ft, 50 ft, and 100 ft lengths
- Custom printing
- Gamma irradiated
- Packaging — including bagging and labeling

## Ordering Information

Part Number	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)
GF-125-250	0.125	0.250	0.062
GF-188-313	0.188	0.313	0.062
GF-188-375	0.188	0.375	0.094
GF-250-375	0.250	0.375	0.062
GF-250-438	0.250	0.438	0.094
GF-250-500	0.250	0.500	0.125
GF-313-500	0.313	0.500	0.094
GF-375-500	0.375	0.500	0.062
GF-375-563	0.375	0.563	0.094
GF-375-625	0.375	0.625	0.125
GF-500-688	0.500	0.688	0.094
GF-500-750	0.500	0.750	0.125
GF-625-875	0.625	0.875	0.125
GF-750-1000	0.750	1.000	0.125

## Sterilization

It is the end-user's responsibility to validate a sterilization method when using GORE™ TPE Tubing. The end-user should conduct testing if sterilization conditions vary and/or if minor property changes could affect application performance. Recommended sterilization methods include:

- Steam — autoclave up to 135°C
- Gas — ethylene oxide
- Radiation — up to 35 kGy / 3.5mRad maximum

## Shelf Life

When stored in the original unopened packaging at standard conditions, GORE™ TPE Tubing has a recommended shelf life of three years from the production date. When gamma irradiated, GORE™ TPE Tubing has a recommended shelf life of one year from the production date.

## Contact Us

For detailed selection criteria, technical assistance and installation guidelines, please contact a Gore representative.

### DISTRIBUTOR INFORMATION

To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any information or material for the use contemplated and the manner of use is the sole responsibility of the user. The above information gives typical properties only.

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