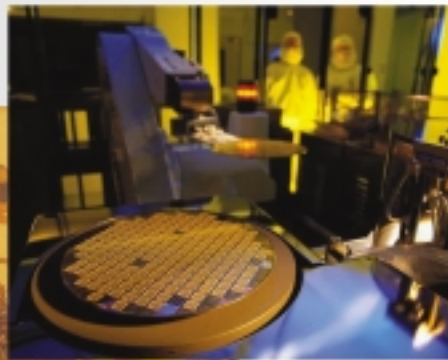


For Fluid-Handling Processes

GORE™ HIGH-RESILIENCE TUBING

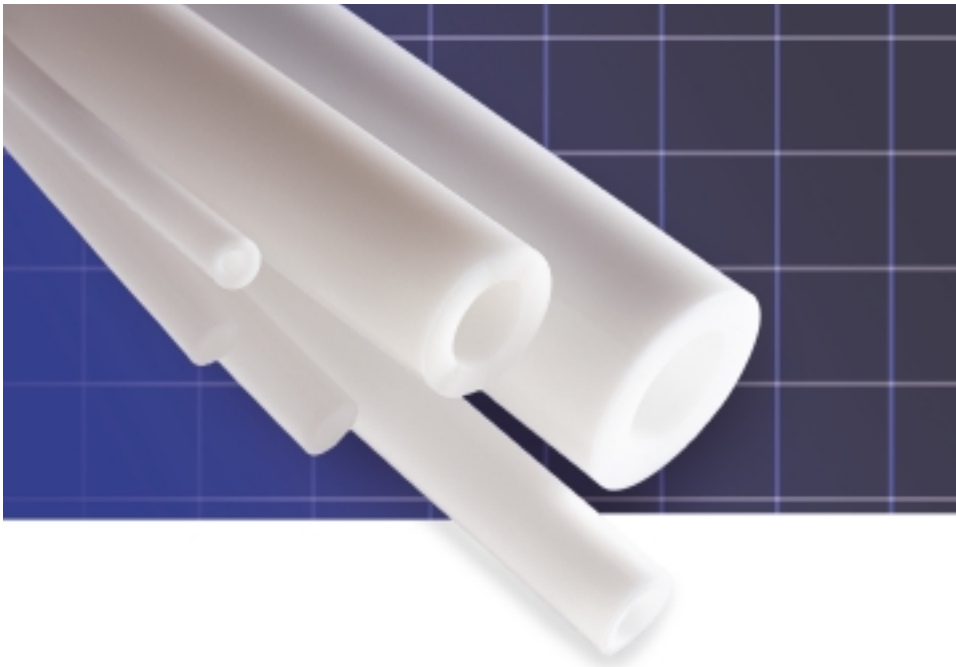


Unmatched
Reliability & Purity

GORE™ STA-PURE® Tubing
GORE™ CHEM-SURE® Tubing



GORE™ HIGH-RESILIENCE TUBING

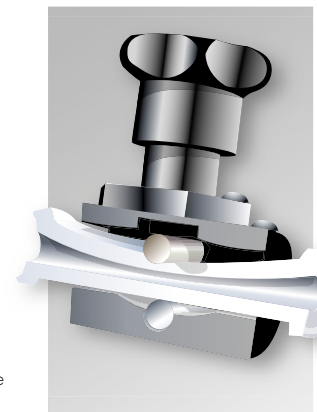


The Most Durable and Dependable Tubing

GORE™ HIGH-RESILIENCE tubing helps critical fluid-handling processes run more cost-effectively. Our tubing maintains stable flow rates over time, handles high pressures, and virtually eliminates spallation. Using GORE™ high-resilience tubing means fewer changeouts and higher-purity fluid handling, so you can transfer media with the utmost confidence and security.

Flexible and highly durable, GORE™ STA-PURE® tubing performs exceedingly well in the most sensitive and sanitary production environments. USP Class VI-approved, its unmatched purity significantly increases process consistency and product integrity, making it an excellent choice for pharmaceutical, biopharmaceutical and semiconductor applications. Completely biocompatible for pharmaceutical processes, its nontoxic composition is also ideal for food and beverage processing. GORE™ CHEM-SURE® tubing stands up to aggressive media in challenging chemical processes.

Both of the GORE™ high-resilience tubing products are designed to meet the needs of OEMs designing innovative, high-performance equipment. They can also be used to retrofit existing systems. Either way, you can trust your peristaltic pumps, pinch valves, and other systems to run cleaner, longer, and more reliably.



Pinch valve



Peristaltic pump

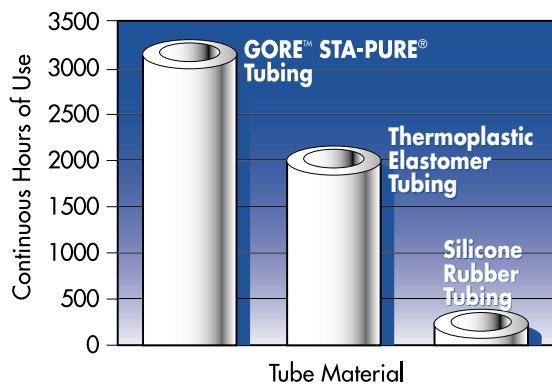
Optimizing Process Applications

Due to its superior resiliency, GORE™ high-resilience tubing is ideally suited for challenging processing applications, such as peristaltic pumps, pinch valves, and other demanding transfer operations where the combination of flexibility and durability is critical.

GORE™ STA-PURE® TUBING

Long-life Performance

GORE™ STA-PURE® tubing is made of a unique composite of platinum-cured silicone and expanded PTFE. Its exceptional longevity is extremely beneficial for high-pressure applications and processes where premature tubing failure is costly. In a peristaltic pump, at a back pressure of 60 psi (4 atm), GORE™ STA-PURE® tubing lasts over 1,000 hours under continuous use at 200 rpm. Under transfer conditions, it lasts more than 18 times longer than silicone rubber tubing, and almost twice as long as thermoplastic elastomer tubing at 360 rpm. Tube rotation is eliminated, while the risk of premature tube rupture is significantly reduced.



Pump tube life under transfer conditions.

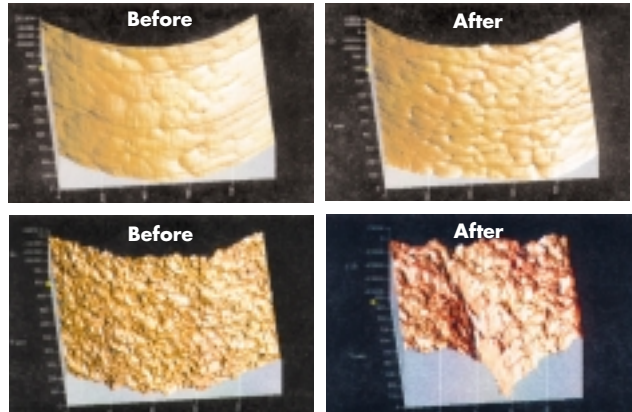
Virtually Eliminates Spallation

The exceptional toughness of the composite structure of GORE™ STA-PURE® tubing provides superior resistance to cracking and abrasion — virtually eliminating spallation. This means the risk of filter plugging is significantly reduced without sacrificing tube life. Moreover, process streams stay cleaner, thereby reducing downstream filtration requirements. The end result: increased efficiency and throughput, along with reduced downtime.



Spallation debris collected onto a microporous filter membrane after recirculating water for 48 hours through thermoplastic elastomer tubing (left) and GORE™ STA-PURE® tubing (right). The thermoplastic elastomer tube produces particles of rubber, inorganic filler, and plasticizer.

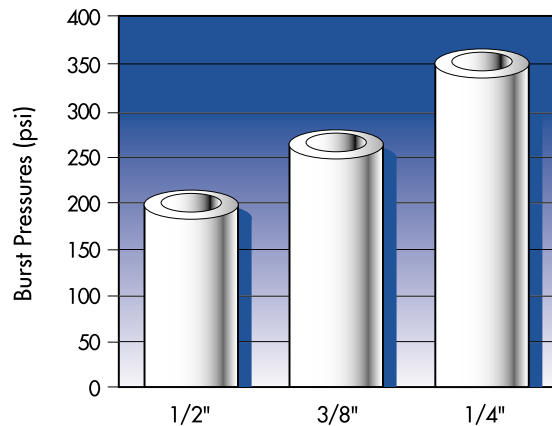
Smooth Bore Reduces Contamination



Profilometric scan of GORE™ STA-PURE® tubing (top) compared to thermoplastic elastomer tube (bottom), before and after pumping water.

The interior of GORE™ STA-PURE® tubing is three times smoother than thermoplastic elastomer tubing. During pumping, thermoplastic elastomer tubing develops grooves where the tube creases, causing rubber particles to be expelled into the process stream. The surface roughness increases from 1.6 microns to 3.6 microns in RMS roughness, whereas the GORE™ STA-PURE® tubing shows only a slight change in surface characteristics.

Highest Pressure Rating



Burst pressures of GORE™ STA-PURE® tubing of various bore sizes.

The unique composite construction of GORE™ STA-PURE® tubing provides superior burst resistance compared to non-reinforced silicone rubber and thermoplastic elastomer tubing. With burst strength approaching 360 psi (24 atm), the tubing can operate at elevated pressures for filtration, transfer, and in-line steam sterilization operations.

Product Configuration

- Tubing ID ranges from 1.6 mm to 40 mm.
- Wall thickness ranges from 0.8 mm to 13 mm.
- Passes USP Class VI, cytotoxicity and physicochemical testing.
- FDA Type II Material Master File is available for citation.



GORE™ HIGH-RESILIENCE TUBING

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Further Information/Ordering

Detailed selection criteria, technical assistance, and installation guidelines are available from your local authorized Gore distributor. Or, contact the application engineers at W. L. Gore & Associates, Inc.

