

STA-PURE peristaltic pump tube

NEW

from Watson-Marlow Bredel Pumps

- Longer service life
- Virtually no spallation
- Highest pressure rating
- Excellent flow rate stability
- USP Class VI approved



Long life at high pressure without spallation

In conjunction with W. L. Gore & Associates, Inc., Watson-Marlow Bredel Pumps is proud to introduce the most remarkable peristaltic pump tube developed in the past fifteen years. STA-PURE tube operates at pressures as high as 7 bar (100psi), lasts 18 times longer than silicone tubing, and virtually eliminates spallation. Together, Watson-Marlow Bredel pumps and STA-PURE tubing have performance superior to any other available today.

STA-PURE peristaltic pump tube is USP Class VI approved and is classified non-toxic. An FDA Type II Material Master File [MMF] is also available for citation.

STA-PURE is ideal for applications including:

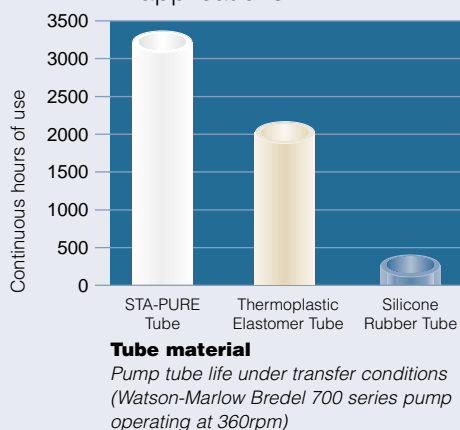
- Filtration/ultra-filtration
 - Live cell transfer
 - Tablet coating
 - Fermentation
- and other applications in the pharmaceutical, biotech and food industries



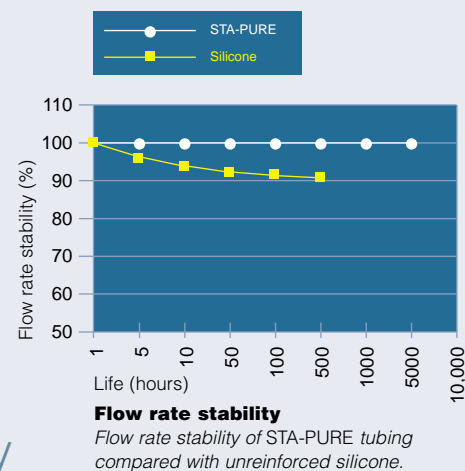
Watson-Marlow Bredel 605Di/R pump loaded with STA-PURE peristaltic pump tube equipped with sanitary fittings.

Long life enhances process security

The exceptional longevity of the STA-PURE peristaltic pump tube is extremely beneficial for tangential flow filtration and other high-pressure applications.



At a back pressure of 4 bar (60psi), this pump tube lasts over 1,000 hours with continuous use at 200rpm in a Watson-Marlow Bredel 700 series pump. Under transfer conditions, it exhibits 18 times the life of silicone rubber tubing, and nearly twice the life of thermoplastic elastomer tubing with continuous pumping at 360rpm. The risk of premature tube rupture is significantly reduced.



Flow rate stability improves process quality

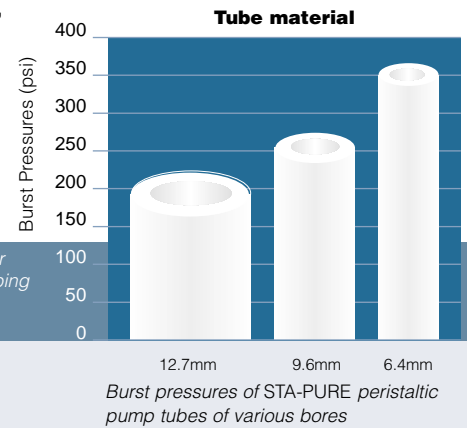
STA-PURE tubing exhibits excellent flow rate stability over time. Compared with regular silicone tubing, STA-PURE tubing produces a virtually constant flow rate throughout its life, irrespective of operating pressure. This ensures stable performance in all applications, helping to improve product quality and consistency and extend calibration intervals.

Superior toughness reduces risk of filter plugging

The exceptional toughness of the composite structure of the new STA-PURE peristaltic pump tube provides superior resistance to cracking, and subsequent spallation is virtually eliminated. This means that the risk of filter plugging can be significantly reduced without sacrificing pump tube life. As a result, process streams stay cleaner, which reduces filtration requirements. This, in turn, both increases efficiency and throughput, and reduces downtime.



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



Unique structure produces highest pressure rating

The unique composite construction of the STA-PURE peristaltic pump tube provides superior burst resistance compared to unreinforced silicone rubber and thermoplastic elastomer tubing.

With burst strength approaching 24 bar (360psi), STA-PURE tube can operate at elevated pressures for filtration, transfer, and in-line steam sterilisation operations.

Smooth bore reduces contamination

The interior of STA-PURE peristaltic pump tube is, before use, three times smoother than thermoplastic elastomer tubing. During pumping, a thermoplastic elastomer tube develops grooves where the tube creases. The surface roughness increases from 1.6 microns to 3.6 microns in RMS roughness, while the STA-PURE peristaltic pump tube shows only a slight increase in roughness, and no grooves develop.

Surface roughness comparison



Profilometric scan of STA-PURE tube (1 and 2) compared to thermoplastic elastomer tube (3 and 4), before and after pumping.

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STA-PURE is a trademark of W.L. Gore & Associates Inc.



Put a peristaltic in your process **Improve your performance**

More reasons why STA-PURE peristaltic pump tube is the better choice:

- Available in sizes up to 40mm bore
- Operates at pressures up to 7 bar (100psi)
- Extremely stable flow rate over time
- SIP/CIP compatible
- Can be equipped with sanitary fittings
- Easy installation with intrinsic flexibility

Developed by W.L. Gore & Associates, Inc. and engineered for Watson-Marlow Bredel Pumps 300, 500, 600, 700 and 800 series peristaltic pump ranges.