# SUPAPORE TTE

## All Fluoropolymer Cartridges

SupaPore TTE Microfiltration cartridges have been specifically designed for use in corrosive gases and liquid processing applications. A naturally highly hydrophobic PTFE membrane and Fluoropolymer structure makes this the cartridge of choice where high resistance to aggressive fluids is required.

#### **Product Features**

SupaPore TTE cartridges feature:

- A naturally hydrophobic PTFE membrane
- 100% Fluoropolymer construction
- Extremely low flush requirements in high purity applications
- Excellent chemical compatibility
- Materials meet the requirements of 21CFR Part 177 and current USP Plastic Class VI - 121°C tests
- Fully integrity testable by bubble point or diffusion flow test
- Operational temperature up to 150°C.



All cartridges are thermally bonded and adhesive free. Each unit is pre-flushed with ultrapure water and integrity tested before final assembly.

Available in a range of absolute rated pore sizes:

- 0.05µm
- 0.1µm
- 0.2µm
- 0.45µm
- 1.0µm

Suitable for most sanitisation regimes including steaming, autoclaving, hot water flush and most common sanitising agents.

Amazon Filters manufacture a comprehensive range of filter housings for SupaPore TTE cartridges including the industrial 50 and 60 Series and the 70 Series for hygienic applications, in 316 Stainless Steel. Other housings are available using Fluoropolymer coatings.

Please consult our Sales Office for further details on the full range.

### Features and Benefits

- Full Fluoropolymer construction
- Validated\* removal ratings for consistent and reliable performance
- Capable of high temperature operation for extended periods
- High chemical resistance to most oxidising agents, solvents, acids and alkalis
- Identification mark on every cartridge
- Full product guide available

\*See product validation guide for further details stating test method and rated efficiencies

## **Industries and Applications**

Food and Beverage Pharmaceutical Ozonated water

Fine Chemicals

Sterile filtration of API's and final solutions

Electronics

Solvents, chemicals, high temperature air/gas





## SupaPore TTE Technical Data

#### **Dimensions**

Outside Diameter: 70mm

Typical Surface Area: 0.63m<sup>2</sup> (Per 10") Length: See ordering guide

### **Maximum Operating Conditions**

Temperature: 150°C

#### Sterilisation and Sanitisation

Steam or Autoclave: 142°C for 30 mins (up to 30 cycles)
During Steam in place (SIP), the differential pressure across the cartridge should not exceed 0.30 bar at 142°C

#### Recommended Maximum Differential Pressure:

Forward Flow: 5.5 Bar @ 24°C

> 3.8 Bar @ 75°C 2.0 Bar @ 125°C 1.0 Bar @ 150°C

Reverse Flow: 3.4 Bar @ 24°C

Recommended change-out differential pressure 2.5 Bar

The operating conditions above should be treated as maximum differential pressures for short term use without causing cartridge collapse problems

Product validation guide available on request. All SupaPore TTE cartridges are manufactured under strict control with batch number identification, giving full traceability on all components.

#### **Standard Materials of Construction**

Filter Media: Polytetrafluoroethylene (PTFE)

PTFE Media support: End Caps: PFA Cage/Core: PFA

#### **Integrity Test Specification**

Micron Rating	Minimum Bubble Point In 60/40 IPA/Water	Diffusion Flow (cc/min/10") In 60/40 IPA/ Water
0.20µm	≥ 1000mBar	≤ 16.5 @ 800mBar
0.45µm	≥ 480mBar	≤ 50 @ 350mBar

**Ordering Guide** 

16TT Е 001 -09 7 F Α Media Grade Micron Rating Length End Caps Seal Branding Options 000 - 0.05µm 09 - 250mm TT - PTFE / PFA F - FEP / Silicone E - Electronics 2 - Code 2 A - Amazon 20 - 500 G - FEP / Viton 001 - 0.103 - Code 3 002 - 0.20 30 - 750 7 - Code 7 004 - 0.45 40 - 1000 8 - Code 8 010 - 1.0

Example: 16TTE002-097FA = PTFE Media, General grade, 0.2µm, single length 10" long, Code 7 end fitting with FEP/Silicone seal.

### 180 150 Pressure Loss (mbar) 120 90 60 30

10

0

Flow Rates For Water (10" Element)

Flow Rates (It/min) A=0.05μm B=0.1μm C=0.2μm D=0.45μm E=1.0μm 20

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