

# STyLUX<sup>®</sup>

## ST0.2 Capsule

### Description

The STyLUX<sup>®</sup> 0.2 µm PES hydrophilic filter capsule is manufactured using high quality components that are nontoxic, biologically inert and provides the added benefit of certification that meets the critical demands of the pharmaceutical, biotechnology, and related industries.

### Materials of Construction

All components of the STyLUX<sup>®</sup> filter capsule are either animal free or in compliance with EMEA/410/01 Rev. 3 (EDQM 5.2.8 07/2011:50208), and US Code of Federal Regulations 9 CFR 94.18 and 21 CFR 189.5. These materials are listed for food contact use in the Code of Federal Regulations (CFR), Title 21, as below:

|                     |                  |                        |
|---------------------|------------------|------------------------|
| Membrane:           | Polyethersulfone | CFR Title 21, 177.2440 |
| Upstream support:   | Polypropylene    | CFR Title 21, 177.1520 |
| Downstream support: | Polypropylene    | CFR Title 21, 177.1520 |
| Outer guard:        | Polypropylene    | CFR Title 21, 177.1520 |
| Core:               | Polypropylene    | CFR Title 21, 177.1520 |
| End caps:           | Polypropylene    | CFR Title 21, 177.1520 |
| Capsule housing:    | Polypropylene    | CFR Title 21, 177.1520 |
| Sealing method:     | Thermal bonding  |                        |

**Pore Size:** 0.2 µm

**Minimum Bubble Point:** 44 psi (3,0 bar), water

**Maximum Diffusion Rate:** 1.6 ft<sup>2</sup> (0,15 m<sup>2</sup>): 7 mL/min @ 35 psi (2,4 bar), water  
3.3 ft<sup>2</sup> (0,31 m<sup>2</sup>): 14 mL/min @ 35 psi (2,4 bar), water

### Operating Characteristics

|                              |                                   |  |   |
|------------------------------|-----------------------------------|--|---|
| Operating temperature range: | Maximum temperature rating:       | Maximum operating pressure (liquid service): | Maximum operating pressure (gas service): |
| 32°F to 100°F<br>0°C to 38°C | 160°F @ 35 psig<br>71°C @ 2,4 bar | 75 psig @ 100°F<br>5,2 bar @ 38°C            | 50 psig @ 100°F<br>3,4 bar @ 38°C         |

**Bacterial Retention** >10<sup>7</sup> per cm<sup>2</sup> removal of *Brevundimonas diminuta* per ASTM F838-05

### Sterilization

Autoclave: 121 to 135°C (15 to 30 psi, 1 to 2 bar), 30 to 60 min, ≥ 3 cycles. Water wet membrane prior to autoclaving.  
Gamma irradiation: 25 to 40 kGy once. Do not autoclave irradiated capsules.  
Capsules must not be steamed in place (SIP).

### Biological Safety

STyLUX<sup>®</sup> filters meet the requirements as specified in the current USP Class VI plastics, physicochemical, oxidizable substances, and cytotoxicity tests. Bacterial endotoxin levels in aqueous extracts of STyLUX<sup>®</sup> filters are less than 0.5 EU/mL, as determined using the *Limulus* amoebocyte lysate (LAL) test. No binders, adhesives or surfactants are used in the construction of STyLUX<sup>®</sup> filters. Filters comply with Commission Regulation (EU) No 10/2011.

### Quality Assurance

Each STyLUX<sup>®</sup> ST0.2 is supplied with a Certificate of Quality verifying the high standards and superior performance of the product. STyLUX<sup>®</sup> filters comply with the Food and Drug Administration Code of Federal Regulations, Title 21, Parts 210 and 211. Product is manufactured and packaged in a cleanroom facility that, through voluntary compliance, meets or exceeds FDA Good Manufacturing Practice Standards. To ensure product reliability, Meissner's Quality Assurance staff continually audits the manufacturing process for conformance to its Quality Management System. Each STyLUX<sup>®</sup> filter is integrity tested during manufacture and is clearly marked with filter type, lot number and serial number.

## Ordering Guide

**C S 2 ST 0.2 - 00 2**

| Capsule Options  |   |
|------------------|---|
| Standard capsule | C |
| Sterile capsule  | G |
| Opaque shell     | O |

| Effective Filtration Area (nominal)        |   |
|--|---|
| 3.3 ft <sup>2</sup> (0,31 m <sup>2</sup> ) | L |
| 1.6 ft <sup>2</sup> (0,15m <sup>2</sup> )  | S |

| Housing Material Designator                              |      |
|--|------|
| Standard polypropylene                                   | Null |
| Gamma-stable polypropylene, animal component free ( ACF) | 2    |

| Vent / Drain Ports |  |
|--------------------|--|
| 0                  | No vent / drain port                           |
| 1                  | One luer port with cap, outlet side            |
| 2                  | Standard; two luer ports with caps             |
| 4                  | Two sanitary valves with hose barbs            |
| 5                  | One sanitary valve with hose barb, outlet side |

| Inlet / Outlet Connections |                          |    |                           |
|----------------------------|--------------------------|----|---------------------------|
| 00                         | 1" sanitary (TC) flange  | 44 | 1/4" MNPT                 |
| 02                         | 1" TC in; 3/8" HB out    | 55 | 3/8" FNPT                 |
| 0C                         | 1" TC in; 1/2" HB out    | 66 | 3/8" MNPT                 |
| CC                         | 1/2" HB (rigid tubing)   | 77 | 3/4" sanitary (TC) flange |
| 22                         | 3/8" hose barb (HB)      | 88 | 3/4" hose barb (HB)       |
| 2B                         | 3/8" HB w / filling-bell | 99 | 1/2" HB (flexible tubing) |

| Product             | Filter Code | Retention Rating |
|---------------------|-------------|------------------|
| STyLUX <sup>®</sup> | ST          | 0.2              |

Additional information about STyLUX<sup>®</sup> filter products is available in the Green Docs document which is viewable at <http://www.meissner.com/downloads/stylux-qd001-2.0.pdf>



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