

Teclen® Lyoprotect® Stainless Steel Cup VS for Lyophilization

Concept

The Teclen® Lyoprotect® Stainless Steel Cup VS (small volume) with screw-on ring cover is designed for freeze-drying of pharmaceutical APIs (Active Pharmaceutical Ingredients). It allows multiple use after cleaning.

The engraved serial number facilitates documentation e.g. of the filled-in substances.

All components, including the Lyoprotect® Membrane, can be sterilized in an autoclave. API can be produced aseptically in compliance with GMP.

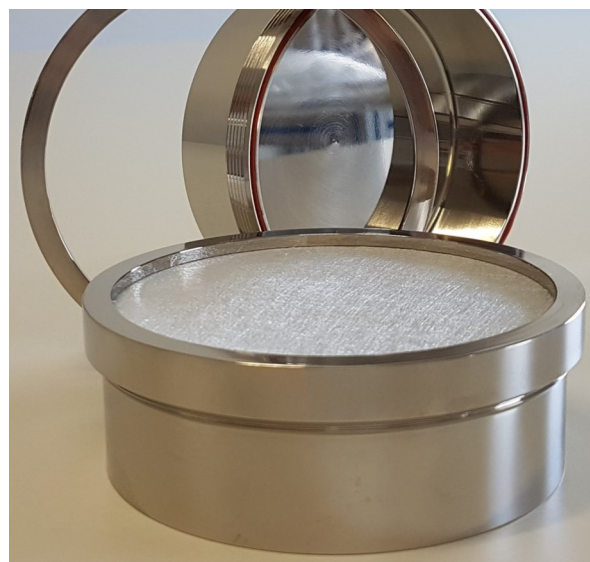
Membrane

The membrane is designed for single use and can be easily replaced before every new drying cycle. It protects the API against contamination and the working environment and staff against fly-out.

Freeze-drying

During sublimation, the vapor can escape smoothly via the hydrophobic membrane. Freeze-drying process parameters determined on an open container can be transferred and lead to nearly the same drying result. The same filling level has to be applied.

The Lyoprotect® Cup VS is the next size after Lyoprotect® Cup VXS. With its larger filling volume it is perfect for an upscaling and can be followed by the Lyoprotect® Trays, either in



Teclen® Lyoprotect® Stainless Steel Cup VS with a filling volume of 30–150 ml

aluminum or stainless steel.

Sealing

The silicone o-ring ensures reliable sealing throughout the entire process.

On request, the o-ring is also available with FEP sheathing, in order to achieve even higher chemical resistance.

Sustainability

The combination of single-use and multiple-use components helps to reduce waste. The high-grade stainless steel cup is very resistant, only the membrane must be discarded.

Product Claims of Teclen® Lyoprotect®

- Bacteria-proof container with vapor-permeable membrane
- 100% visual inspection of membrane and components
- Serial number and work's test certificate 3.1 for stainless steel material
- Components comply with the regulations for materials and articles intended to come into contact with food according to (EC) No 1935/2004 and (EU) No 10/2011
- The Lyoprotect® Membrane does not contain any material of animal origin
- Made in Germany

Design Features and Materials

Multiple-use Components

Stainless Steel Cup with screw-on ring cover:

Stainless steel 1.4404 (ANSI 316L) with inspection certificate 3.1, consecutive serial number, polished surface, roughness Ra= 0.4 µm

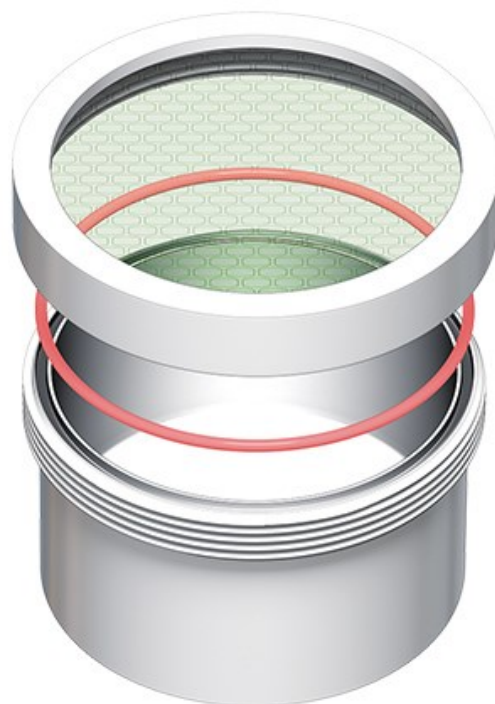
Sealing:

- Silicone o-ring, 70 Shore A, 90 x 1.5
- Silicone o-ring with FEP sheathing, 70 Shore A, 90 x 1.5

Single-use Component

Teclen® Lyoprotect® Membrane:

Expanded PTFE on polypropylene non-woven backing material, membrane facing the pharmaceutical product after assembly



Teclen® Lyoprotect® Cup with screw-on ring cover, o-ring and single-use membrane

Dimensions

The Teclen® Lyoprotect® Stainless Steel Cup VS has an outer diameter of 93 mm (screw-on ring cover: 100 mm) and an overall height of 35 mm.

Filling level [mm]	Volume [ml]
5	30.4
10	60.8
15	91.2
20	121.6
25	152.1



Teclen® Lyoprotect® Stainless Steel Cup VS with serial number

➤ Please see the Teclen® Lyoprotect® Product Catalog for detailed order information.

All technical information and recommendations are based on our experiences and / or test results. They are given to the best of our knowledge, but do not state any liability by our company. Users are responsible for checking the suitability of the respective product for their specific application.

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