

# Sovrano<sup>™</sup> Hollow Fiber Modules For beer clarification

### Description

The Pall **Sovrano** hollow fiber modules provide a sustainable and economic solution for membrane-based beer clarification and stabilization specifically developed as an alternative to traditional Diatomaceous Earth filters used in breweries. A special developed hollow fiber is serving the brewers needs for a clear and brilliant beer before packaging. The Pall patented module design combines minimum waste with optimum performance and process safety. Pall Sovrano modules are designed for the use in Pall PROFi systems in combination with the Pall stainless steel housings.

#### Sovrano Module Design

#### Sovrano PES hollow fiber membranes

- Are assembled and sealed into reusable stainless-steel housings. These housings are designed for use in crossflow systems manufactured and serviced by Pall worldwide.
- Withstand the cleaning and sanitizing cycles defined for PROFi systems in the brewing industry.
- Designed for processing a none destructive microbial cross failure test to ensure microbial performance before each filtration.
- Fulfil all regulatory requirements (*e.g.* FDA, Food Contact Compliant).
- High performance sealing assembly with epoxy potting for no by-pass possibility between retentate and permeate side
- Inside-out operation in crossflow mode
- Compatible with CIP (cleaning in place) procedures developed by Pall for PROFi systems
- Vertical operation enables total air purge and liquid drainage
- · Low retentate and permeate hold-up volume
- High compactness for cost effective systems design and small foot print
- Increased filtration surface per module up to 12 m<sup>2</sup>

# Main Applications & Operations

- Beer clarification for all types of beers
- Beer stabilization in combination with specific Silica Types and single use PVPP (pre-swelling mandatory)
- Batch or continuous process
- Disposal as standard municipal waste



# Pall Sovrano Membranes Characteristics

- PES material and asymmetric structure demonstrating high performance in beer filtration
- High reliability for long service life

#### Pall Sovrano Modules Key Features

- Food Contact Compliant<sup>1</sup>
- Compatibility with Pall PROFi systems operation and CIP conditions
- Long service life with stable and reliable performance
- · Microbial cross failure test before each filter run

<sup>&</sup>lt;sup>1</sup> Sovrano PES membranes and modules meet the requirements for food contact as detailed in European Regulation (EC) Numbers 1935/2004. The products have been assessed under the Plastics Materials and Articles in Contact with Foodstuffs Regulations laid out in EU Regulation 10/2011 and its amendments. All membrane and module components are made from materials that our suppliers state meet the requirements for food contact use. The materials of construction are listed in the FDA requirements for food contact use as detailed in Code of Federal Regulations, 21 CFR.

# Pall Sovrano Modules Technical Data

Identification	Product name Module type	Sovrano W1200 PE06515 PPC 6A
Membrane Features	Fiber I.D. (mm) Fiber quantity Pore size (micrometer)	1.5 2800 0.4-0.6
Module Material	Membrane Housing tube shell Potting Gaskets Wetting fluid	Poly Ether Sulfone stainless steel epoxy resin EPDM ethanol/water
Module Dimensions	Filtration area (m²) Length (mm) Diameter (mm)	12 1068 168
Operating Conditions	Flow direction Max. temperature (°C) Max. TMP (Barg) Typical flux (I/m <sup>2</sup> h) pH range	inside-out 74 2.3 50-80 1-12

#### Pall Sovrano PES Hollow Fiber Modules



1 bar = 100kPa



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Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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