

# **BIOKLARIS Evo BEER**

- New PES membrane with enhanced characteristics
- High effective filtration area with more retention capacity
- Easy integrity testable in situ
- Steamable in situ
- Sanitizable and cleanable
- Thermowelded construction
- EC- listed materials for Food contact
- FDA-listed materials per CFR21
- Increased service life to reduce filtration cost



BIOKLARIS Evo BEER filter element is more stout and has been created for breweries to provide more mechanical strength in critical conditions.

Bioklaris Evo Beer is a filter element able to guarantee the microbiological stability of the beer to be bottled; retain all the contaminants leaving the unique taste and flavor of the beer.

This filter element is easily testable with a minimum flushing before use, and it has specifically designed to be used in automatic microfiltration equipment where washing and regeneration cycles with critic acid and soda are foreseen. The manufacturing is carried out in a controlled environment. The cartridges are verified in Production and are 100% integrity tested.

#### **MATERIALS OF CONSTRUCTION**

Membrane	Polietersulfone (Highly asymmetric)	
Upstream supports	polypropylene	
Downstream supports	polypropylene	
Internal Core	polypropylene	
External Cage	polypropylene	
End caps / Adapters	polypropylene	

#### FOOD-SAFETY

BIOKLARIS Evo BEER filter element materials meet (EU) regulation 10/2011 and its amendments, regulations (EC) 1935/2004 AND 1895/2005. Construction materials are in compliance with FDA

Construction materials are in compliance with FDA requirements according to CFR 21; par. 177-199.

## **QUALITY STANDARDS**

Produced under a ISO 9001 certified Quality System to guarantee traceability of manufacturing records and integrity testing results.

## **RECOMMENDED OPERATING CONDITIONS**

- max. continuous temperature	75 °C	
- max. cumulative number of steam sterilization cycles	≥100 hours at 121 °C, ≥80 hours at 125 °C* with max $\Delta P$ 0,3 bar (cycles of 60 minutes)	
- sanitization with hot water	90 °C max	
- sanitization with chemicals	can be sanitized by usual chemical agents	
- regeneability	NaOH solution up to 3% at 85 °C	
- max. differential pressure	5,0 bar at 25 °C and 1,0 bar at 90 °C	
- recommended change out differential pressure	2,0 bar at 25 °C	
* maximum in-line sterilization temperature		

#### **INTEGRITY TEST DATA**

CODE	DDE ABSOLUTE FILTRATION RATING IN LIQUIDS	PRESSURE HOLD VALUE *	TEST PRESSURE	MAX. DIFFUSION FLOW VALUE IN WATER FOR 10" CARTRIDGE
		8 cartridges of 30"		(ml/min)
BD	0,45 µm	≤ 0,12 bar	1,1 bar	≤20
BG	0,65 µm	≤ 0,12 bar	0,8 bar	≤20
* the values are related to a test time of 5 minutes and are indicative: they depend on the housing volume upstream the filter element.				

#### TYPICAL FLOW RATE FOR 10" CARTRIDGE

CODE	BEER (L/h)
BD	750
BG	850

Filtration area up to 7500 cm<sup>2</sup> for 10" cartridge

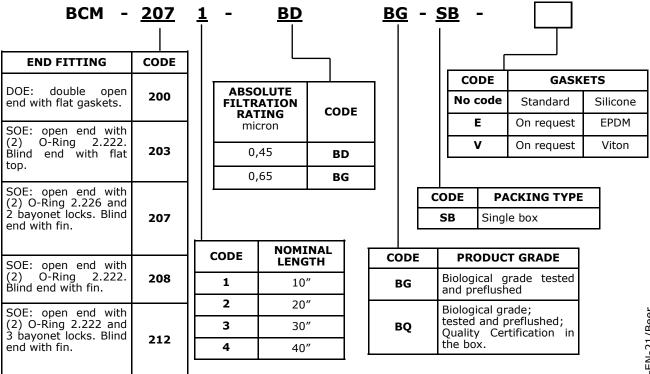
## **BACTERIAL RETENTION**

CODE	FILTRATION RATING micron	* BACTERIAL RETENTION > 10 <sup>7</sup> per cm <sup>2</sup>
BD	0,45	Acetobacter oeni / Pediococcus damnosus / Saccharomyces cerevisiae / Brettanomyces bruxellensis / Lactobacilius brevis
BG	0,65	Saccharomyces cerevisiae / Brettanomyces bruxellensis

\* As per ASTM F838

Filtration rating 0.45 micron is proven to retain  $10^9 \mbox{ UFC}$  of Serratia marcescens for  $10'' \mbox{ cartridge}$ 

## **BIOKLARIS Evo BEER-PART NUMBER ORDERING INFORMATION**



## TRACEABILITY

In order to ensure the complete traceability, each filtering element is identified with Part Number, lot number, serial number and filtration rating.

## QUALITY

Each filtering element is tested during the production and before the final packaging.

Data contained in this bulletin are informative and subject to change without notice. User is responsible for determining whether the product fits for particular purpose and is suitable for User's applications.



Bea Technologies Spa Via Newton, 4 - 20016 Pero (Milano) ITALY Tel +39 02 339271 FAX +39 02 3390713 e-mail: <u>info@bea-italy.com</u> web: www.bea-italy.com