

# PEPLYN HD Food and Beverage

Filter Cartridges



PEPLYN HD filter cartridges have been developed to excel in liquid clarification applications where a consistent quality of filtrate is required from variable particle loadings of the process solution.

The PEPLYN HD filter media has outstanding particle holding capacity through its multi-layer high depth construction, providing extended service lifetimes and consistent quality filtrate under demanding conditions.

Capture of particles is throughout the depth of the media with larger particles being retained in the outer prefiltration layers, while the inner graded density media provides accurately defined retention to finer particulate. Both these mechanisms combine to provide a cartridge filter which returns extended service lifetimes.

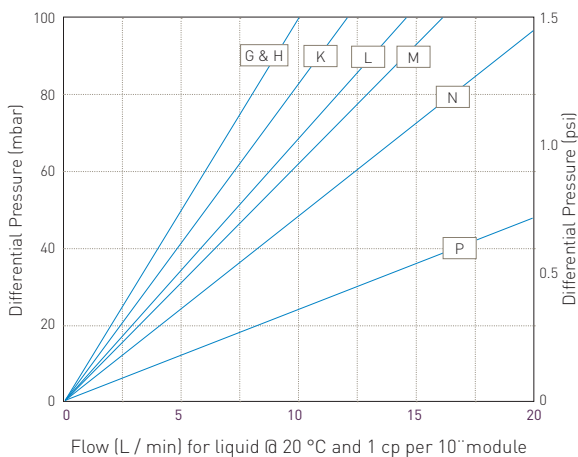
## Features

- High depth, graded density filtration media
- Available in a range of absolute micron retention ratings
- All polypropylene, thermally bonded construction

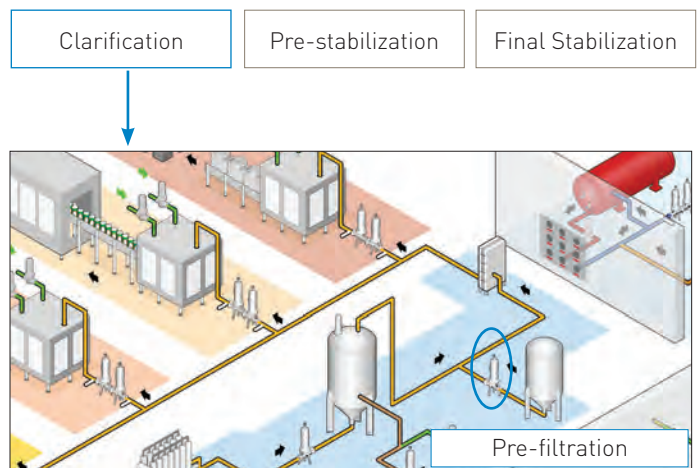
## Benefits

- Increased dirt holding capacity and resistance to blockage under high loading conditions
- Ability to provide consistent quality of filtrate in a wide range of clarification applications
- Compatible with aggressive process conditions including chemical cleaning and steam sanitization

## Performance Characteristics



## Filtration Stage



## Specifications

### Materials of Construction

|                          |                      |
|--------------------------|----------------------|
| ■ Filtration Media:      | Polypropylene        |
| ■ Prefilter Layer:       | Polypropylene        |
| ■ Upstream Support:      | Polypropylene        |
| ■ Downstream Support:    | Polypropylene        |
| ■ Inner Support Core:    | Polypropylene        |
| ■ Outer Protection Cage: | Polypropylene        |
| ■ End Caps:              | Polypropylene        |
| ■ End Cap Insert:        | 316L Stainless Steel |
| ■ O-rings:               | Silicone / EPDM      |

### Effective Filtration Area (EFA)

10" (250 mm) Up to 0.3 m<sup>2</sup> (3.22 ft<sup>2</sup>)

### Cleaning and Sterilization

PEPLYN HD cartridges can be repeatedly steam sterilized in-situ or autoclaved at up to 135 °C (275 °F). They can be sanitized with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals.

### Manufacturing Traceability

Each filter cartridge displays the product name, product code and lot number. Additionally, each module displays a unique serial number providing full manufacturing traceability.

### Food Contact Compliance

Materials conform to the relevant requirements of FDA 21 CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C.



### Retention Characteristics

The retention characteristics of PEPLYN HD filter cartridges have been determined by a single-pass technique using suspensions of ISO 12103 Pt. 1 A2 Fine and A4 Course test dust in water.

### Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

| Temperature  |              | Max Forward dP |       |
|--------------|--------------|----------------|-------|
| °C           | °F           | (bar)          | (psi) |
| 20           | 68           | 5.0            | 72.5  |
| 40           | 104          | 4.0            | 58.0  |
| 60           | 140          | 3.0            | 43.5  |
| 80           | 176          | 2.0            | 29.0  |
| 90           | 194          | 1.0            | 14.5  |
| >100 (steam) | >212 (steam) | 0.3            | 4.0   |

Micron rating at various efficiencies

| Media Code | >99.99% | 99.98% | 99.90% | 99%   | 95%  | 90%  |
|------------|---------|--------|--------|-------|------|------|
|            | 10000   | 5000   | 1000   | 100   | 20   | 10   |
| G          | 3.00    | 2.80   | 1.80   | 1.00  | 0.85 | 0.70 |
| H          | 4.80    | 4.70   | 3.20   | 2.60  | 1.90 | 1.60 |
| K          | 9.00    | 8.20   | 6.90   | 5.00  | 3.70 | 3.40 |
| L          | 12.00   | 10.00  | 7.80   | 5.90  | 4.60 | 4.00 |
| M          | 14.00   | 10.00  | 9.20   | 6.90  | 6.10 | 5.00 |
| N          | 17.00   | 14.00  | 12.00  | 9.00  | 7.00 | 6.00 |
| P          | 22.00   | 18.00  | 15.00  | 12.00 | 9.40 | 6.80 |

## Ordering information

|      |                  |      |         |      |                   |      |          |  |
|------|------------------|------|---------|------|-------------------|------|----------|--|
| PHD  | -                |      |         | N    | -                 |      | A        |  |
| Code | Length (Nominal) | Code | Micron  | Code | End Cap (10 inch) | Code | O-rings  |  |
| 1    | 10" (250 mm)     | G    | 3.0 µm  | C    | BF / 226 Bayonet  | S    | Silicone |  |
| 2    | 20" (500 mm)     | H    | 4.8 µm  | D    | Fin / 222         | E    | EPDM     |  |
| 3    | 30" (750 mm)     | K    | 9.0 µm  | E    | Flat Top / 222    |      |          |  |
| 4    | 40" (1000 mm)    | L    | 12.0 µm | H    | UF Retrofit       |      |          |  |
|      |                  | M    | 14.0 µm | R    | BF / 222 Bayonet  |      |          |  |
|      |                  | N    | 17.0 µm |      |                   |      |          |  |
|      |                  | P    | 22.0 µm |      |                   |      |          |  |

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