

# SureBond Filter Cartridges

*Polypropylene*

**SUREBOND BONDED  
DEPTH SERIES**



## High Purity Filtration With Low Cost Melt Blown Depth Cartridges

Rellumit SureBond Cartridges are the most economical high purity filter cartridges available.

Featuring a graded density matrix of uniform polypropylene fibers, the SureBond provides consistent filtration for a wide variety of fluids. No fiber finish or surfactants are present to generate extractables leading to foaming or other undesirable effects on the filtrate.

SureBond Cartridges are available in nominal ratings of 1µm, 5µm, 10µm, 25 µm and 50µm.

### Applications

- ✓ Glycol
- ✓ Amine
- ✓ Lube Oil
- ✓ Boiler Feedwater
- ✓ DI Water
- ✓ Bleach
- ✓ Food & Beverages
- ✓ Chemical Processing Fluids
- ✓ R.O. Prefiltration
- ✓ Organic Solvents
- ✓ Membrane Prefiltration
- ✓ Potable Water

### FEATURES AND BENEFITS

- Fixed pore structure provides efficiency integrity and optimum particle retention.
- Thermally bonded melt blown fiber matrix provides dimensionally stable construction.
- Continuous fiber matrix prevents media migration and ensures consistent quality filtration performance.
- Finish-free construction provides optimum fluid purity and eliminates foaming condition.
- Superior inter-layer bonding eliminates contaminant unloading and channeling.
- FDA grade polypropylene (DOE only) certified for contact with drinking water components.
- Narrow range fiber size optimizes consistency of filtration performance.
- Polypropylene construction provides broad chemical compatibility for a variety of applications.
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.
- Single component construction simplifies compatibility options and provides easy disposal.



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**rellumit**  
FILTRATION

# BONDED DEPTH SERIES

## SPECIFICATIONS

### Nominal Filtration Ratings:

- 1µm, 5µm, 10µm, 25µm, and 50µm.

### Materials of Construction:

- Filter Medium: 100% melt blown polypropylene
- End Caps/Adapters (optional): polyolefin copolymer
- Seal Options: Various; refer to Ordering Information

### Maximum Recommended Operating Conditions:

- Temperature:
  - @ 40 psid (2.7 bar): 80°F ( 27°C)
  - @ 20 psid (0.8 bar): 140°F (60°C)
- Flow Rate:
  - 10 gpm (38 lpm) per 10 in length
- Change Out ΔP: 30 psi (2.1 bar)
- Operating Differential
  - Pressure @ Ambient Temperature: 40 psi (2.7 bar)

### Dimensions:

- 1-1/16 in ID x 2-7/16 in OD (max)
- 10, 20, 30, 40 and 50 in continuous nominal lengths

Individual element specification sheets available on request

### Flow Factors

Rating (µm)	Aqueous Service PSI/ GPM per 10 in Cartridge
EBC1	0.10
EBC5	0.08
EBC10	0.07
EBC25	0.06
EBC50	0.05

### Length Factors

Length (in)	Length Factor
9.75	1.0
10.00	1.0
19.50	2.0
20.00	2.0
29.25	3.0
30.00	3.0
39.00	4.0
40.00	4.0
50.00	5.0

### Flow Rate and Pressure Drop Formulae:

$$\text{Flow Rate (gpm)} = \frac{\text{Clean } \Delta P \times \text{Length Factor}}{\text{Viscosity} \times \text{Flow Factor}}$$

$$\text{Clean } \Delta P = \frac{\text{Flow Rate} \times \text{Viscosity} \times \text{Flow Factor}}{\text{Length Factor}}$$

### Notes:

1. **Clean ΔP** is PSI differential at start.
2. **Viscosity** is centistokes.  
Use Conversion Tables for other units.
3. **Flow Factor** is ΔP/GPM at 1 cks for 10 in (or single).
4. **Length Factors** convert flow or ΔP from 10 in (single length) to required cartridge length.

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