

## Press-Fit ePTFE Vent Plugs (D15 / D17 / D20 Series)

Engineered Microporous Membrane Venting Solutions for Industrial, Agrochemical, and Chemical Packaging

### PRODUCT OVERVIEW

Ventrase Press-Fit ePTFE Vent Plugs are high-performance waterproof and breathable components designed to balance internal container pressure while preventing liquid leakage and contamination.

Utilizing expanded Polytetrafluoroethylene (ePTFE) microporous membrane technology, these vent plugs protect containers against deformation, swelling, or collapse caused by temperature variations, altitude changes, or off-gassing active ingredients.

### KEY ADVANTAGES

- Rapid Pressure Equalization:** Prevents container bloating and paneling.
- Reliable Liquid Barrier:** Blocks liquids, oils, and particulate ingress.
- Oleophobic & Hydrophobic:** Resists low-surface-tension liquids and chemicals.
- Snap-In Installation:** Designed for manual or automated high-speed cap assembly.
- High Thermal Stability:** Maintains structural integrity across broad temperature ranges.

### 1. DIMENSIONAL & MATERIAL SPECIFICATIONS

| Model / Size  | Outer Diameter (Ø D1) | Total Height (H) | Cap Hole Cutout (Ø D2) | Body Material  | Membrane Material  |
|---------------|-----------------------|------------------|------------------------|----------------|--------------------|
| D15 Press-Fit | 15.0 mm               | 8.5 mm           | 13.2 - 13.5 mm         | HDPE / PP / PE | ePTFE (Oleophobic) |
| D17 Press-Fit | 17.0 mm               | 10.0 mm          | 15.0 - 15.3 mm         | HDPE / PP / PE | ePTFE (Oleophobic) |
| D20 Press-Fit | 20.0 mm               | 11.5 mm          | 18.0 - 18.3 mm         | HDPE / PP / PE | ePTFE (Oleophobic) |

### 2. TECHNICAL PERFORMANCE PARAMETERS

| Performance Indicator              | Standard Specification / Value                                                                | Test Standard / Method              |
|------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------|
| Airflow Rate (@ 70 mbar)           | 120 - 450 mL/min (depends on pore size)                                                       | ISO 5636 / Internal Flow Meter      |
| Minimum Water Entry Pressure (WEP) | ≥ 60 kPa (≥ 0.6 bar)                                                                          | ISO 811 / Hydrostatic Pressure Test |
| Oleophobic Rating                  | Grade 6 - 8                                                                                   | AATCC 118                           |
| Ingress Protection Rating          | IP67 / IP68 (1m immersion for 60 min)                                                         | IEC 60529                           |
| Operating Temperature Range        | -40°C to +120°C (-40°F to +248°F)                                                             | Thermal Cycling Chamber             |
| Chemical Resistance                | Compatible with Agro-chemicals, Fertilizers, Organic Solvents, Surfactants, Hydrogen Peroxide | ASTM D543 Chemical Exposure Test    |

### 3. INSTALLATION & HANDLING RECOMMENDATIONS

#### Assembly Note & Cap Design Guidelines:

- Cap Hole Dimension:** Ensure cap cutout tolerances strictly align with recommended hole diameters to ensure an interference fit seal.
- Press Force:** Apply uniform vertical insertion force. Avoid contacting or damaging the central ePTFE membrane surface during automated assembly.
- Cleanliness:** Cap interior should be clean and dry, free of oil or debris before plug installation.

## 4. QUALITY ASSURANCE & COMPLIANCE

|                       |                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------|
| Quality Control       | 100% Airflow and Hydrostatic Leak Pressure batch tested during manufacturing process.                       |
| Regulatory Compliance | RoHS Compliant, REACH Compliant, Heavy Metal Free, Food Contact Grade Option (FDA 21 CFR 177.1550).         |
| Packaging & Storage   | Packed in double-layer PE bags in dust-free environment. Store in cool, dry conditions (15-25°C, RH < 60%). |