**GORE<sup>®</sup> Protective Vents** Screw-In and Snap-In Series Quality Assurance Testing

# ROBUST QUALITY ASSURANCE TESTING FOR INCREASED CONFIDENCE AND PEACE OF MIND

The Gore Protective Venting team is committed to providing high quality products that maximize device performance. With over 30 years of expertise and experience in venting sensitive electronics and sealed devices, we stand behind the quality and performance of each and every vent that is produced from our global manufacturing facilities. We are constantly adapting state-of-the-art processes.

To ensure that our products deliver the performance and reliability that you expect, we conduct various tests and use key performance indicators during vent production.

The following key performance indicators are monitored as part of the quality assurance testing process:

#### Airflow

Airflow is defined as the amount of air that flows through the membrane over a particular time, with a given pressure differential.

#### Water Entry Pressure (WEP)

The liquid intrusion properties of a vent are measured by what is referred to as the water entry pressure.

#### 1) In-Line Airflow Test

Using an in-line airflow testing system leads to a high level of component reliability because 100% of the vents can be evaluated during production. This ensures that only fully functional products that meet airflow performance specification are delivered to our customers.

Your benefit: This assures the specified airflow/pressure equalization performance is met



Benefits of Quality Assurance Testing During Series Production of Screw-In and Snap-In PolyVents

- 100% airflow testing and camera inspection on all Screw-In and Snap-In PolyVents
- Valuable information regarding key performance indicators such as airflow and water entry pressure (WEP) are monitored
- Confidence that the vents meet your application's performance requirements

#### 2) In-line camera test

An optical test using in-line cameras can rapidly detect that our Screw-In and Snap-In PolyVent Series products are correctly produced without abrasion or stressing of the parts. This inspection method is used to inspect each and every vent during the fully automated, high-volume process.

Your benefit: 100% of the vents are optically inspected







# 3) Water Entry Pressure Test

Hydrophobic membranes have liquid-resistant properties to prevent the intrusion of high surface tension fluids like water. The water entry pressure test assures that for a given pressure and time, no water passes through the membrane.

Your benefit: Your housing is protected against water entry

# 4) Oleophobicity Test

Oleophobic membranes have oil-resistant properties to prevent lower surface tension liquids penetrate the membrane.

Your benefit: your housing is protected against lower surface tension fluids entry

# 5) Manual Microscopical Inspection

Samples of each lot are tested to guarantee the optimum appearance and molding quality. Several characteristics are examined under the microscope to identify even the smallest irregularities such as flash. All irregular parts are rejected and only parts that meet our robust inspection criteria are accepted and released.

Your benefit: Optimum vent appearance and molding quality

### 6) General Component Inspection

Constant process parameter monitoring during production, as well as regular inspection and maintenance cycles, ensure the high quality of our vents. In addition, our vents are periodically double checked that all key dimensions and tolerances are within specified limits. Also, implemented parts such as O-rings and membranes are inspected before and during the vent production process to ensure maximum performance.

Your benefit: Ensured quality of each Screw-In and Snap-In PolyVents component

### 7) Tracking Code for Your After Sales Security

Each part receives an individual tracking code during the laser etching process. This assures lot traceability and will enable Gore to reference the actual production data should an issue arise in the field.

Your benefit: 100% after sales security

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