



ShieldZone
Venting & Protection

Adhesive Pressure Vents



Shieldzone Technology utilizes advanced ePTFE membrane stretching, bonding and lamination technology available today. This allows design engineers to develop maximum dust efficiencies and water protection, while maintaining the highest airflow. These specially designed vents are thin, light and easy to install making them ideal for small spaces regardless of manual or automated installation.

Though Shieldzone Technology has more than 50 standard sizes available, adhesive vents are built-on-demand according to each customer's specific requirements. Options such as membrane type, shape and size according to the IP or oil rating, airflow or off-gas venting. A variety of adhesives are offered for unique application surfaces and to endure harsh environments. Adhesive vents are sold in roll, sheet or strip form based on our customer's requirements. Choose from one of our sample standard selections below or contact with our engineering specialists for additional options.

Features

- Shape and size can be customizable
- Thin, light, ideal solution for small space and thin wall enclosures
- Optimized vent structure design for easy installation
- Flexible membrane selection from IP54 to IP68
- Flexible air flow selection from 20ml/min/cm² @7kPa to 20000ml/min/cm² @7kPa
- Roll, sheet or strip type available for automatic installation
- 100% final part inspection for highest quality

Outdoor Applications

Telecom infrastructure
Outdoor lighting
Sensors
Home appliances
Solar power
Heavy duty equipments and ruggedized vehicles
Network cameras
Marine equipments and testing instruments

Portable Electronics Applications

Waterproof mobile phones
Wearable devices
Bluetooth handsets
Two-way radios
Industrial scanners
Waterproof tablets and notebooks
Smart home appliances
Waterproof cameras

Product Information *

Characteristics	23150-T	23050-T	23030	25010
IP rating	IP67, IP68 ^A	IP67, IP68 ^A	IP67, IP68 ^B	IP67, IP68 ^C
Typical airflow (ml/min/cm2 @7kPa)	5,000	5,000	3,000	1,500
Reference thickness(um)	140	140	180	130
Adhesive type	Acrylic	Acrylic	Acrylic	Acrylic
Membrane type	ePTFE	ePTFE	ePTFE	ePTFE
Membrane characteristics	Oleophobic	Hydrophobic	Hydrophobic	Hydrophobic
Membrane color	White	White	White	White
Support material	Polyolefin	Polyolefin	Polyolefin	Polyester
Part orientation	Internal mount	Internal mount	Internal mount	Internal mount
Adhesive temperature range	-40 to 120°C	-40 to 120°C	-40 to 120°C	-40 to 120°C
ROHS compliance	Yes	Yes	Yes	Yes

Characteristics	25002	232002	25070-E	AVB-1
IP rating	IP67, IP68 ^C	IP67, IP68 ^D	IPX7, IP68	IP67
Typical airflow (ml/min/cm2 @7kPa)	350	100	700	25,000
Reference thickness(um)	130	150	100	20
Adhesive type	Acrylic	Acrylic	Acrylic	Acrylic
Membrane type	ePTFE	ePTFE	PES	ePTFE
Membrane characteristics	Hydrophobic	Hydrophobic	Hydrophobic	Hydrophobic
Membrane color	White	White	White	Gray
Support material	Polyester	Polyolefin	N/A	N/A
Part orientation	Internal mount	Internal mount	Internal mount	Internal mount
Adhesive temperature range	-40 to 120°C	-40 to 120°C	-40 to 120°C	-40 to 120°C
ROHS compliance	Yes	Yes	Yes	Yes

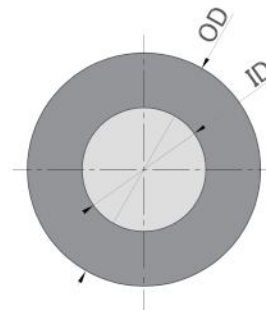
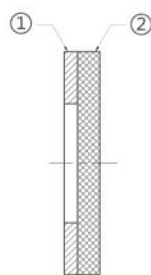
A : 2 meter water immersion for 1 hour

B : 4 meter water immersion for 1 hour

C : 6 meter water immersion for 1 hour

D : 50 meter water immersion for 10 min

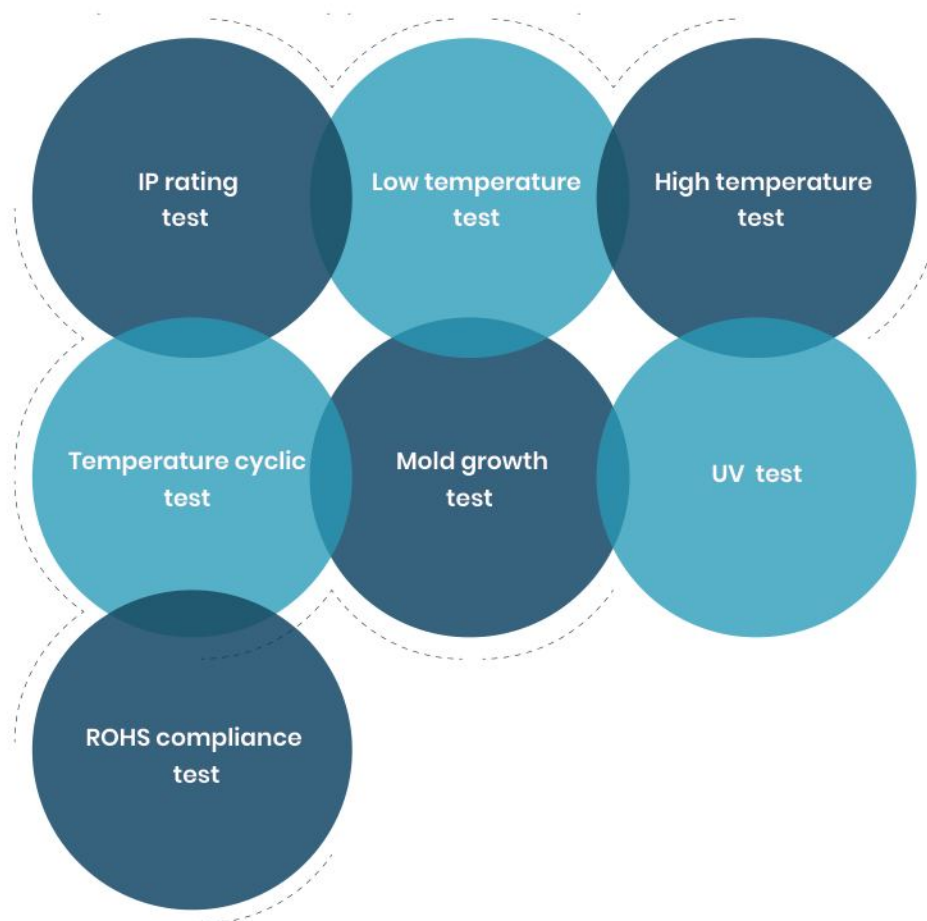
Sample Standard Sizes *



- 1 Adhesive
- 2 EPTFE membrane
- OD Outer diameter
- ID Inner diameter

Part Number	OD	ID
040ID	4mm	1.5mm
0502	5mm	2mm
0603	6mm	3mm
0703A	7.6mm	3.3mm
0804	8mm	4mm
1005	10mm	5.5mm
1408	14mm	8mm
1908	19.05mm	8.89mm
2112	21.5mm	12.5mm
2920	29mm	20mm
3825	38mm	25mm
7550	75mm	50mm

Testing Reports



* Shieldzone Technology offers build-on-demand parts specified to our customer's requirements. Please contact with one of our engineering specialists for additional membrane options.

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Installation Guidelines

Introduction

Shieldzone vents are designed for quick pressure equalization and effective thermal management of critical electronic components. To get the best operation performance and service life, please follow the installation guidelines.

Manual Installation Precautions

Latex gloves and blunt edged tweezers are highly recommended to handle and install the adhesive vents.

Do not pry or fold the adhesive vents since this may damage the vent. Roll the liner under the vent to make the vent separate from the liner naturally (See Picture 1). Follow dispenser instructions while using an automated dispenser.

During the installation, the vent should be protected from contacting hands, sharp edged and any rigid things which may damage the vent. The inside membrane area without adhesive ring can't contact anything during the installation.

Do not reposition the adhesive vents after installation since the repositioning will damage the adhesive vents.

Allow 24 hours dwell time before using or testing the adhesive vents while the installation has been finished.

Manual Installation Guidelines

1. Preparation

The mounting surface should be clean and free of liquids, dusts, and other contaminants before installation. Isopropyl alcohol or heptane can be used to clean the mounting surface if needed.

Allow surface to dry after cleaning. Smooth out all sharp edges. The surface should be flat and the roughness of the mounting area should not exceed 0.4 micron Ra.

2. Positioning

Roll the liner under the vent to make the vent separate from the liner naturally (See Picture 1). Then use the tweezers to remove the vent from the liner (See Picture 2). Put the vent into the mounting area of the enclosure.

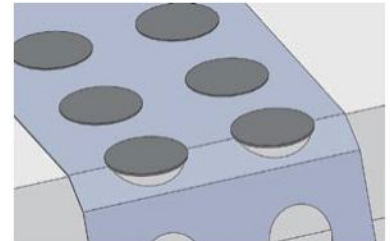
3. Installation

Apply light finger pressure to the adhesive ring entirely and uniformly to seal the adhesive vent to the enclosure (See Picture 3). The optimum finger pressure is about 4.0N (It is similar to the finger pressure with notebook computer keyboard while typing).

4. Inspection

Make sure the adhesive vent to be installed to the enclosure evenly without any deformation such as shrinking or wrinkling. Make sure the adhesive vent to be inside the marking or the target frame if there is a marking or a target area.

.Roll the liner to separate the vent



.Remove the vent with tweezers



.Install the vent with finger

