

Technical Information Report



TOLAS Healthcare Packaging
An Oracle Packaging Company

Dispos-A-Vent™ Pouches

Barrier Packaging for EtO Sterilization

There are currently products being packaged which require EtO sterilization, but also need very low MVTR (Moisture Vapor Transmission Rate) after sterilization and drying, for the expected shelf life of the package.

Currently, some OEM's load product into a foil pouch and then, without sealing the pouch closed, insert it into a Tyvek®/film pouch and seal for sterilization. You now have multiple packages, with multiple handling and the costs associated with them, and your product is still not in its final state.

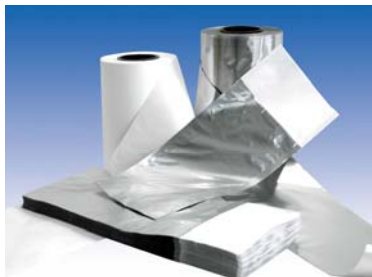
After sterilization, the pouches need to come back to have the foil pouch sealed to create the barrier pouch. This requires a cleanroom, to open the Tyvek® pouch, remove and seal the foil pouch, all without compromising sterility. Some OEM's can seal the foil pouch through the film side of the Tyvek®/film pouch, which eliminates the potential for compromising sterility, but you still have two packages, the handling, and the cost.

TOLAS' Dispos-A-Vent™ pouches eliminate the need for double packaging and protects the packaged product in a puncture-resistant, oxygen- and moisture-barrier pouch.

Summary

TIR #2 addresses the problem of multiple packaging for products that require both barrier properties and EtO sterilization.

What is a Dispos-A-Vent™ Pouch?

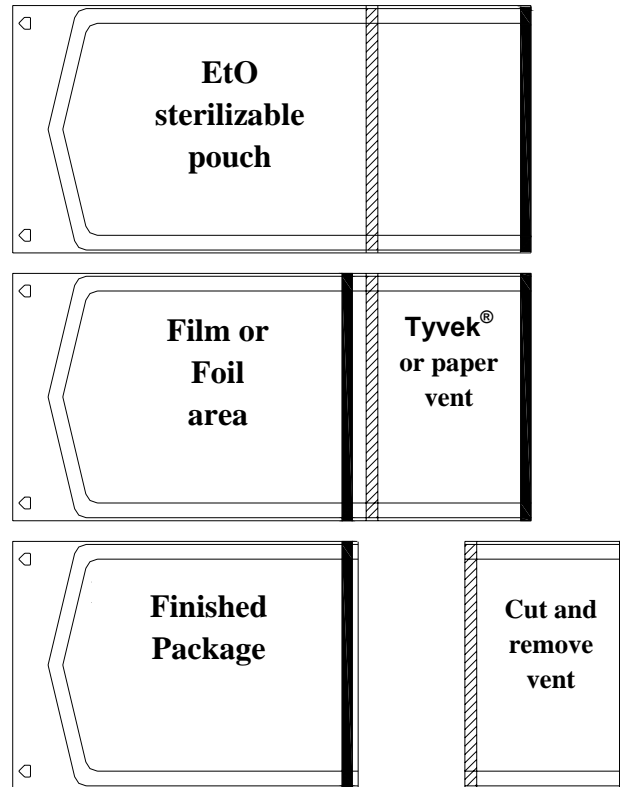


.Dispos-A-Vent™ barrier pouches are designed with a disposable Tyvek® vent for maximum airflow during EtO sterilization and a spacious high barrier film or foil pouch area for easy conversion after sterilization.

This type of pouch is created by joining a film or foil pouch with a strip of Tyvek® at the open end to allow for sterilization and drying (which is intended to remove moisture absorbed inside the pouch during the sterilization process).

How does a Dispos-A-Vent™ Pouch

Package your device in a **Dispos-A-Vent™** pouch for sterilization. After the sterilization cycle is complete, make a seal enclosing your device in the barrier area of the pouch and cut off and dispose of the Tyvek® vent. The result is a sterile device in a film or foil pouch with superior barrier properties.



What size Dispos-A-Vent™ Pouch

To determine the size of the **Dispos-A-Vent™** pouch necessary for a product, first determine the size of the final sealed pouch (length and width estimations may be determined using the **What Size Pouch Do I Need?** Sales tool available from the pouch page of the website).

Next, multiply the length of the final finished pouch by the factor 1.25. This will be the length of the intermediate pouch which includes the Tyvek® header. The exposed length of the header vent is one quarter the length of the final finished pouch.

The above guidelines will provide a greater breathing area than is necessary for EtO sterilization, but it will provide for reduction in EtO residuals to acceptable levels in a relatively shorter time.

What are the features and benefits of a Dispos-A-Vent™

- Oxygen barrier for protection of sensitive products
- Moisture barrier for prolonged shelf life
- Tyvek® or paper vent for excellent porosity during sterilization
- Outstanding puncture resistance to prevent product breakthrough
- Cost efficient by eliminating the need for double packaging
- Peelable seals, provided by TOLAS SealScience® heat-seal coating technology, for visual assurance of seal integrity

What material combinations are available

The following material combinations have been run successfully and are currently available:

Top Web	Bottom Web	Vent
TPC-0814 (foil)	TPC-0814 (foil)	1073B Tyvek®
TPC-0814 (foil)	TPC-0814 (foil)	2FS™ Tyvek®
TPC-0814B (foil)	TPC-0814B (foil)	1073B Tyvek®
TPC-0814B (foil)	TPC-0814B (foil)	2FS™ Tyvek®
TPC-0760B (foil)	TPC-0765B (foil)	TPT-0260 (Tyvek®)
TPF-0599B (film)	TPC-0814 (foil)	Paper
ITD-2190 (foil)	ITD-2190 (foil)	Tyvek®
TPC-0810 (foil)	TPC-0810 (foil)	Tyvek®

Conclusion

TOLAS Health Care Packaging converts select barrier materials and Tyvek® to form the Dispos-A-Vent™ pouch, a barrier package that allows for EtO sterilization.

TOLAS

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