



Packaging Vents

INDUCTION LINERS

Application Testing Recommendations for GORE® Pulp Induction Liners

HOW PULP INDUCTION LINERS WORK

Gas passes through the microporous ePTFE Membrane, diffuses through the pulp layer and is directed to the cap threads. Pulp Induction Liners do not require a hole in the cap and can be optimized to vent with minimal vapor loss.



RECOMMENDATIONS FOR EVALUATING FITNESS FOR USE

The following tests are designed to evaluate product fitness with respect to seal integrity, leakage, and resistance to deformation when changes in pressure, resulting from changes in temperature or altitude, are encountered during the use of the product. This series of stress tests can be performed sequentially, using the same sample set of bottles. Bottles should be labeled for easy identification. Minimum recommended sample size is 30.

TEST PREPARATION

Fill sample bottles with the test fluid and label for identification. Induction seal the liners to the caps. *Caution: too much power to the induction sealer could damage the membrane and block airflow.* Ask a Gore representative for advice on proper induction sealing methods.

Leak test: Evaluate the integrity of the induction seal and the performance of the Gore membrane with exposure to the test liquid.

- Place the sample bottles upside down or on their side for at least 15 minutes.
- Check the bottles to ensure a good seal has been achieved.
- If leaks appear, check the following:
 - Check the bottle rim and liner seal for impurities (grease, liquids, etc.) Make sure the liner type is compatible with the test bottle and that the liner is fully covering the bottle rim.
 - If leaks persist around the seal or through the membrane area, contact a Gore associate.

Temperature test: Evaluate the sealed bottles under ambient and elevated temperatures.

- Place half the sample set, or at least 15 bottles, sealed and upright in a constant 45°C oven for three weeks.
- Place the other half of the sample set sealed and upright in constant ambient conditions for three weeks.
- Watch for signs of deformation weekly in both sets of samples. *No leakage or significant deformation should occur.*
- If leakage or deformation is observed, please contact Gore promptly for help with failure analysis, or suggestions.

Altitude test: Evaluate the performance of the sealed bottles during transport through changing altitudes.

- Load and transport the sample bottles from the packaging site to the final destination. During transport, create the greatest change in altitude possible.
- If noticeable collapsing (paneling) or bloating occurs, please contact Gore for help with failure analysis, or suggestions.

Extended altitude test: To confirm the results, the altitude test may be repeated with a larger sample size of 300 bottles.



Pressure can cause containers to bloat or collapse. GORE® Packaging Vents equalize pressure and prevent container distortion.



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INSTALLATION, HANDLING AND STORAGE RECOMMENDATIONS FOR GORE® PULP INDUCTION LINERS

Please follow proper installation and handling recommendations to prevent damage to the product.

GORE® Pulp Induction Liners use temporary wax adhesive and are sensitive to temperature extremes. The possibility of bowing, curling, and/or separation of the liner facing from the backing material could occur if the liners are not handled as directed.

Keep liners out of direct sunlight and away from other heat sources. Product should be stored at ambient storage conditions between 15 – 25°C (60 – 80°F) and 40 – 60% relative humidity. Short-term excursions outside the recommended conditions are permissible where these excursions occur no more than five (5) times per roll and the temperature does not exceed 35°C (95°F) for eight (8) hours, or drop to less than -9°C (15°F), per excursion.

If materials are overheated or chilled during transit or storage, it is advisable to store the materials at the recommended temperature and humidity for at least 48 hours before further processing.

- Do not bend, fold or twist the liner material.
- Avoid scraping or touching vent membrane surface.
- The compatibility of the liner and membrane with chemicals should be evaluated prior to use.
- It is recommended that GORE® Pulp Induction Liners be punched and inserted into caps within 12 months of delivery.

CONTACT US

Samples of GORE® Pulp Induction Liners are available for immediate shipment. For assistance in determining the best GORE® Packaging Vent for your application, or for help in validating your packaging design, contact a Gore sales associate.



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by W. L. Gore & Associates GmbH
is certified according to
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INTERNATIONAL CONTACTS

Australia	61.2.9473.6800	Mexico	52.81.8288.1281
China	86.21.5172.8299	Scandinavia	46.31.706.7800
France	33.1.5695.6565	Singapore	65.6733.2882
Germany	49.89.4612.2211	South America	55.11.5502.7800
India	91.22.6768.7000	Spain	34.93.480.6900
Italy	39.045.6209.240	Taiwan	886.2.8771.7799
Japan	81.3.6746.2572	United Kingdom	44.1506.460123
Korea	82.2.393.3411	USA	1.410.392.4440

W. L. GORE & ASSOCIATES, INC.

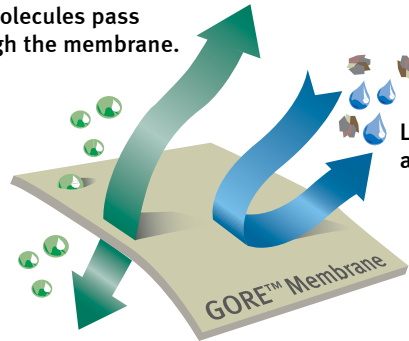
401 Airport Road • P.O. Box 1550 • Elkton, MD 21922-1550 • USA
Phone: 410.392.4440 • Toll-Free: 800.637.4449 • Fax: 410.506.8749 (US)
Email: packvent@wlgore.com

gore.com/packvents

FROM THE EXPERTS IN MEMBRANE TECHNOLOGY

For more than 25 years, GORE® Packaging Vents have consistently provided reliable performance in challenging packaging applications. Gore venting technology maintains container integrity with liquid, powder and granular chemical formulations. Some chemicals can consume gases, causing plastic containers to collapse. Other chemical formulations can cause plastic containers to bloat or panel. Either situation can lead to rupture, which can be accelerated by fluctuations in temperature and atmospheric pressure during storage and shipping. This risk must be addressed in order to prevent leakage during distribution, transportation and storage. The GORE® Pulp Induction Liner incorporates a unique, proprietary GORE™ Membrane made of ePTFE, which resists liquid penetration and equalizes pressure, even after exposure to particulates and solvents. This enables the use of thin-walled, lightweight packaging to minimize production, transportation and disposal costs.

Gas molecules pass through the membrane.



Liquid and particles are repelled.

**GORE® PACKAGING VENTS EQUALIZE PRESSURE,
PREVENTING CONTAINER LEAKAGE OR RUPTURE.**

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