

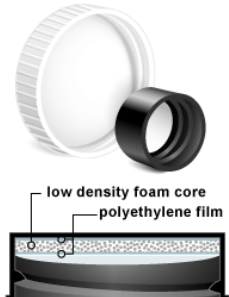
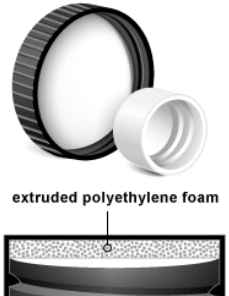
Choosing Closure Liners

Selecting the right liner is a critical part of cap selection. Liners help prevent leaks, protect against moisture and chemicals, and ensure product integrity for food, chemical, and consumer goods.

Each liner material offers unique benefits and limitations, so compatibility with your product and container is essential. Testing is strongly recommended to ensure performance and regulatory compliance.

Use the guide below to compare common liner types and determine the best fit for your application.



Liner	Description	Benefits	Disadvantages	Common Uses
3-Ply Foam (F217) 	<p>A three-ply liner is a general-purpose liner, made of compressible polyethylene foam. These do not create a seal and are often used for leak prevention. F217 is a name brand and is often interchangeable with the foam liner.</p>	<ul style="list-style-type: none"> • Taste and odor resistant • Low moisture transmission rate • Compatible with metal, plastic, or glass containers 	<ul style="list-style-type: none"> • Does not create an airtight seal 	<ul style="list-style-type: none"> • Household products • Food & liquor • Cosmetics • Pharmaceuticals
Polyethylene Foam 	<p>General purpose liner made of compressible polyethylene foam that does not create a seal. Often used to prevent leaking.</p>	<ul style="list-style-type: none"> • Compatible with metal, plastic, or glass containers • Economical • Can be used to take up room on the top of the cap when the thread of the neck is not high enough to achieve a tight closure 	<ul style="list-style-type: none"> • Fair to poor resistance against hydrocarbon solvents. • It is not advised to use these with paints, lighter fluid, adhesives, or polishes • Does not create an airtight seal 	<ul style="list-style-type: none"> • Household products • General purpose liner • Water-based products

Liner	Description	Benefits	Disadvantages	Common Uses
Pressure Sensitive (PS 22) 	<p>A pressure sensitive foam liner with one adhesive side that sticks to the container with the pressure used to stick on to the rim of the container. When the closure is removed, the pressure sensitive liner remains on the top of the container. They are typically white on each side. These can come printed on one side with "Sealed for your protection" or can come unprinted.</p>	<ul style="list-style-type: none"> Seal provides an extra level of protection that preserves the freshness of non-perishable dry products You do not need secondary equipment to make the seal, only regular torque application 	<ul style="list-style-type: none"> Does not work well with liquids Recommended shelf life of 6 months. For maximum storage life, store in a temperature range between 60 and 80 degrees, with relative humidity at 40-60%, and no direct exposure to sunlight These are not tamper evident seals 	<ul style="list-style-type: none"> Thick liquids Dry products Powders
Induction 	<p>They can be made with layers of pulpboard, wax and foil. These liners are applied to the container with the use of an induction sealing machine. When the liner is heated, the wax melts to the container creating an airtight, hermetic seal. These can come printed with a message (such as sealed for your protection) or plain.</p>	<ul style="list-style-type: none"> Provides tamper evident seal Once the liner is removed, it cannot be reapplied to the container Creates an airtight, hermetic seal to help prevent leakage There are different types of induction liners (oils are on compatible with certain liners) so additional testing is needed 	<ul style="list-style-type: none"> Induction lined caps must be applied using an induction sealing machine The liner needs to be compatible with the resin of the container Not recommended for metal caps or glass There is variation within heat seal liners, so heat seal liners must be tested with the product and container 	<ul style="list-style-type: none"> Food & liquor Liquid products Pharmaceuticals
Poly Vinyl 	<p>Liner is made of a thin, vinyl coating applied to high density polyethylene coated paper that is laminated to pulp board.</p>	<ul style="list-style-type: none"> Good chemical resistance Works well with both oil and water-based products Perfect for general use 	<ul style="list-style-type: none"> Not recommended for active hydrocarbons or bleaches Best for cold fill 	<ul style="list-style-type: none"> Alcohol Mild acids Powders Cold fill applications
Polyseal™ 	<p>An LDPE cone liner that creates a wedge type seal across the top of the container providing a leak proof seal for liquid products, virtually eliminating leakage, evaporation, and contamination.</p>	<ul style="list-style-type: none"> Cone liners are stress crack resistant Form an exceptionally tight seal and offer a good chemical barrier 	<ul style="list-style-type: none"> Not generally paired with plastic containers 	<ul style="list-style-type: none"> Harsh chemicals Liquid products Essential oils