



## Induction Sealing: What Is It?



The induction sealing process bonds a **foil laminate inner seal to the lip of a container**. After the container has been filled and capped with an induction-lined closure, it passes underneath the induction sealing system. The non-contact heating process welds the liner to the container creating an **airtight seal**.

When properly applied, induction lined caps provide a **hermetic, leak proof, and tamper evident seal**. Using an induction sealing system is ideal for **extending product shelf life, preserving freshness, preventing costly leaks and enhancing your product's value**. A recent trend is to print **promotional material** including QR Codes on the induction seal foil.

## How Induction Sealing Works

The induction sealing process involves an induction current being applied to a metal liner in a plastic cap. The bottle is first filled, then the cap is applied. The cap already has the liner inside. The liner contains the sealing material adhered to a foil layer. The induction current heats the foil liner, melting the sealant. The pressure of the threaded cap upon the bottle provides the required pressure. As the sealing layer cools, it adheres to the bottle.

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## **Choosing the Right Container, Cap & Liner Materials**

Selecting the best induction liner for your product is dependent on several factors, such as the container's material and application.

Induction liners are available in **one-piece** or **two-piece construction**. The one-piece type consists of a foam-backed or paper-backed foil laminate. After the sealing process, the entire liner will be completely removed from the cap.

A two-piece liner has an additional wax layer and pulp board layer. The induction heating process will melt the wax, which is absorbed into the pulp board, releasing it from the foil liner. The pulp board layer remains inside the cap for improved resealing after the foil liner has been removed.

Plastic containers with continuous thread plastic caps produce the most consistent seal with the least challenges.

### **Points to take care of**

#### **Caps have been applied with the proper torque**

- Creates consistent pressure between circumference of the container lip and liner

#### **Adequate distance between the cap and sealing head**

- More sealing strength closer to the coil
- Optimal distance is 1/8 inch

#### **Induction sealer's power setting and amount of sealing time**

- Too little heat: weak seal; too much heat: burned or deformed liner
- Begin testing at minimum power; increase by 1-2% with subsequent containers until desired seal is achieved

#### **Container is properly centered under sealing head**

- Ensures liner will bond evenly to container lip

If you need additional information, please feel free to contact us at [mktg@regentplast.com](mailto:mktg@regentplast.com)