



Validation Checklist High Performance Foil Pouches

Critical Considerations

Foil packaging is often the first choice when extended shelf-life, durability, and puncture resistance are key specifications. It also allows for design versatility, strong seals, and withstands sterilization, transport, storage, and repeat use. It is well-suited for food and beverage, personal care, medical, diagnostic, pharmaceutical and other sensitive applications. Before a package featuring foil can be successfully validated and brought to market, a number of factors must be taken into consideration.

Process & Materials

What are the characteristics of the packaged contents (size, form, unique chemistry)?

Why is foil specified?

What other materials have been specified and why?

Are their optimal visibility or clarity specifications?

What are the specific barrier properties required (UV, moisture, oxygen, chemical, odor resistant)?

Does the product have unique breathable barrier requirements?

Could a foil alternative work?

What are the defined dimensions and tolerances?

Are there surface attribute requirements?

Are there distinctive features or closure requirements?

What are the sterilization requirements?

Quality

What is the required shelf-life? Why?

What is the intended duration of use?

Single-use or repeated?

Is the product consumed?

Or will there be direct skin contact?

Are their specific printing/labeling requirements?

Traceability requirements?
Regulatory requirements?

During normal transport and storage what is the anticipated amount of pressure the packaging will endure?

Are there special testing requirements?

Real World Applications

What are the potential environmental risks for abrasion, puncture, exposure to heat or UV?

Are their risks from the required/specified sterilization method?

Is the interior product a hard-to-hold liquid?

What is the level of skin adhesion needed from the medical or diagnostic device?

What will make the packaging most resonate with the consumer?

What is the ideal ratio of rigidity to flex?

How will the user store the product/device?

Foil will always be a key player, but it is also expensive and often experiences supply chain issues. It is important to review all product/packaging considerations and explore if a foil alternative might be a viable solution. Let the Vonco engineering team help you review all your packaging options.