



APPLICATION BULLETIN

FORMERRA

POLYMER SOLUTIONS FOR FLEXIBLE PACKAGING

While it may look simple, those of us who are involved in the development of flexible packaging know it is far from easy. You need material and processing technologies that keep pace with market dynamics and ever-evolving consumer preferences.

Today's packaging needs to accommodate shifts in the way food and beverages are consumed, as well as consumers' growing interests in clean labels, healthier eating, portability, and convenience. Shifts in how consumers purchase are driving the need for packaging designs that pop online as well as on-shelf. There is also a need for materials that provide added strength and stiffness, because as

processing and packing equipment becomes faster & more efficient, it places greater physical demands on the final packaging structure.

Do you need materials for a new flexible packaging application? Are you looking for a polymer blend that improves processing, heat seal strength or other performance need? Are you interested in material supplier consolidation? If so, Formerra can help.

Our portfolio of flexible packaging resins from these leading suppliers includes multiple options for almost any packaging need.



BUILDING MULTI-LAYER FILM STRUCTURES

① SKIN LAYER

Requirements: Dimensional Stability, Temperature Resistance, Puncture & Abrasion Resistance, Encapsulation of Barrier Materials, Aesthetics – Gloss & Clarity

SOLUTION: HDPE, LDPE, LLDPE, PA, PP

② STIFFNESS LAYER

Requirements: Withstand Automated Packaging Lines, Meet End Use Requirements, Conform to Desired Shape During VFFS, Protect Product Integrity, Communicate Quality

SOLUTION: HDPE, Ionomers, LLDPE, MDPE, PP

③ TIE LAYER

Requirements: Bond Incompatible Layers, Prevent Separation of Layers, Improve Mechanical Functions

SOLUTION: EAA, EMAA, EVA, MAH-g

④ STRENGTH LAYER

Requirements: Product Containment & Quality, Withstand Stress Throughout Supply Chain, Processing & End Use Temperatures, Withstand Changes in Elevation During Shipping

SOLUTION: HDPE, Ionomers, LDPE, LLDPE, PA

⑤ BARRIER LAYER

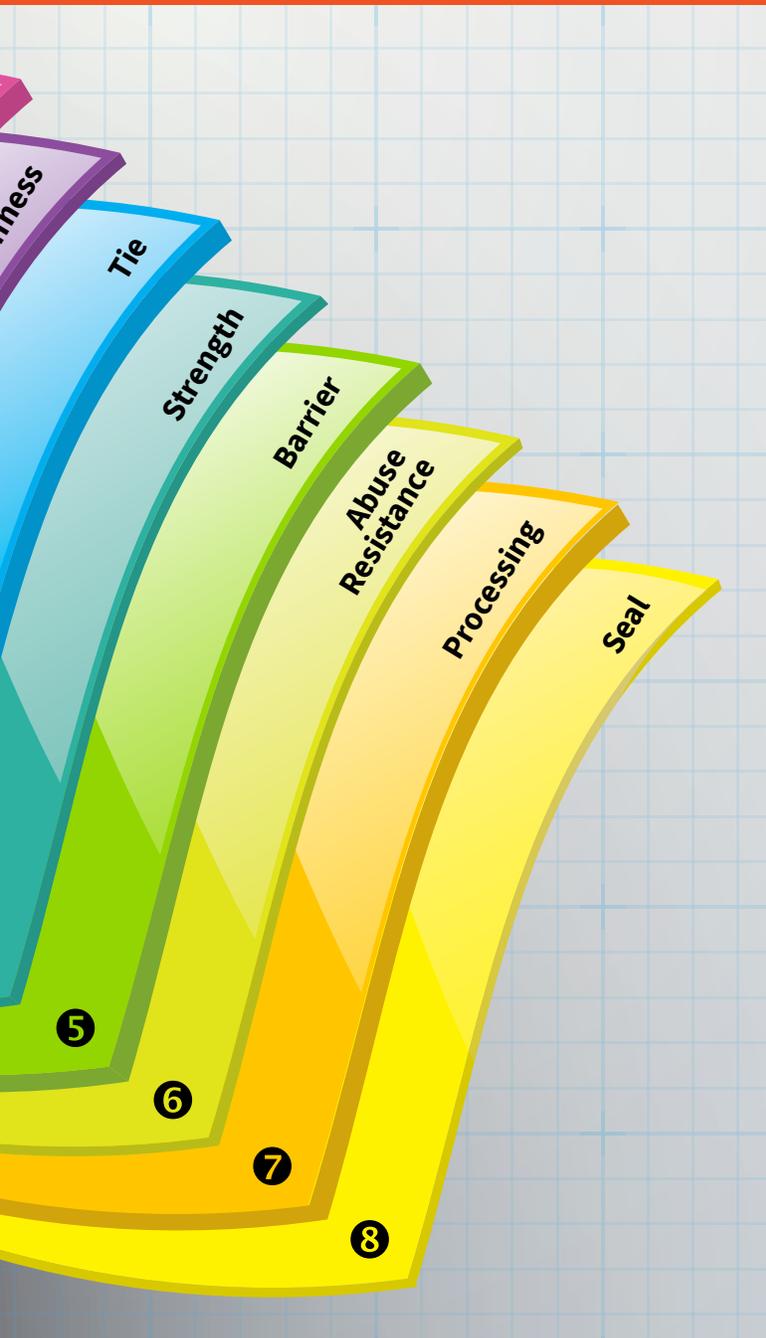
Requirements: Prevent Contamination, Maintain Product Freshness, Effectively Manage What Stays In/Stays Out and Moves through the Packaging, Prevent Foil Pin-Holing

SOLUTION: EAA, HDPE, Amorphous PA, PP



Our team can support packaging applications produced using various processing methods:

FORMERRA HAS A BROAD MATERIAL PORTFOLIO FOR YOUR PACKAGING NEEDS. But recommending the right material for your application isn't all we do. Our packaging team includes technicians who can assist with processing issues, resources who can guide you through regulatory requirements and supply chain efficiency, and market experts who can keep you updated on the latest trends that affect your business. We're here to help you meet challenges today and well into the future.



6 ABUSE RESISTANCE LAYER

Requirements: Impact, Tear, Abrasion, Puncture, Distortion Resistance

SOLUTION: Ionomers, LLDPE, PA, POP, PP, TPE, TPO (POE)

7 PROCESSING LAYER

Requirements: Improve Flow, Speed & Output, Decrease Extrusion Pressures, Improve Interlayer Stability, Improve Layer Symmetry

SOLUTION: LDPE, Amorphous PA, PP, TPO (POE), VLDPE

8 SEAL LAYER

Requirements: Low Seal Initiation Temperature, Seal Strength, Hot Tack Strength, Broad Hot Tack Temperature Window, Seal Through Contamination, Melt Strength, Low Extractables & Scalping, Peel Strength, Abrasion Resistance, Grease & Oil Resistance

SOLUTION: EAA, EMA, EVA, Ionomers, LDPE, LLDPE, POP, VLDPE, Specialty Lidding Sealants

MASTERBATCH ADDITIVES

Non-migrating slip

Antiblock

Denest

Regrind compatibilization

UV protection

PLA modification

Blown film

Extrusion coating

Cast film

Extrusion laminating

Cast sheet

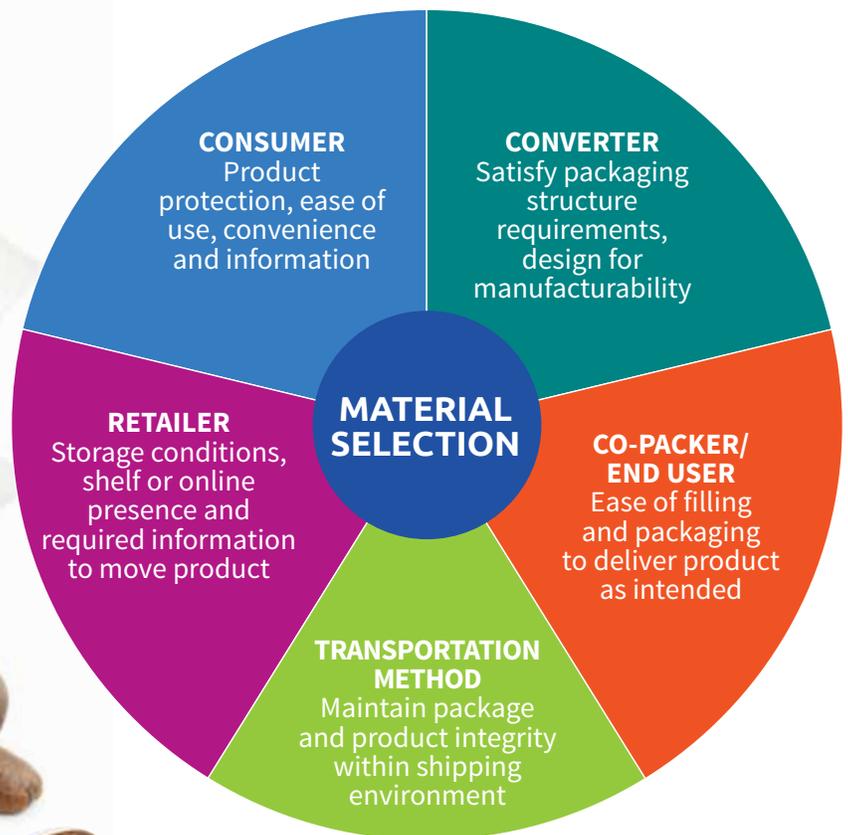
Thermoforming

A COMPREHENSIVE APPROACH TO FLEXIBLE PACKAGING

We recognize each packaging application is unique, and that consumer preferences drive decisions all the way to back to the beginning of the development cycle.

When you work with Formerra during your design and development stage, we'll help you identify, anticipate and address material

and structure needs along the entire packaging supply chain. Our goal is to help you produce a packaging structure that not only delivers the product as intended, but also provides each stakeholder in the supply chain with the deliverables they need and expect.



Contact us today to discuss the best materials for your current flexible packaging structures, and find out how we can help you meet your customers' future packaging needs as well.



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