

FORMERRA PACKAGING SOLUTIONS

Caps, Closures & Fitments



CAPS, CLOSURES & FITMENTS

Caps, closures and fitments are critical to ensuring packages of all types are properly sealed—and their design requires deep expertise. When it comes to material selection, choosing the proper resin is critical to the functionality of the overall product—including reliable sealing, protection of goods and consumer attractiveness.

At Formerra, we help you solve your toughest application challenges by providing a specialized approach to the latest material, colorant and additive technologies. With a dedication to sustainable solutions, technical and logistics expertise and innovative design engineering capabilities, we can help you mitigate risk, optimize design, and accelerate product commercialization.



CAPS, CLOSURES & FITMENTS

Applications include:

- Food & beverage packaging
- Industrial chemical packaging
- Personal care products

Packaging Solution Needs:

- Excellent processability
- Best-in-class taste and odor properties
- Exceptional barrier and seal performance
- High temperature resistance
- Superior environmental stress crack resistance (ESCR)

ABS

INEOS Styrolution Terluran®

High-flow, general purpose injection molding grade with good ductility, intended for moldings with thin walls and/or adverse flow length to wall ratio.

Copolyester

Eastman Eastar™ COPE

High-melt-strength copolyester designed for extrusion blow-molded bottles and jars.

Polycarbonate

Covestro Makrolon® PC

Makrolon® has a very unique property profile. It is noted above all for its high transparency, heat resistance, toughness and dimensional stability coupled with a high creep modulus and good electrical insulation properties.

Polyethylene

Chevron Phillips PE

High density polyethylene resins that have excellent melt strength, processability, and environmental stress-crack resistance to stiffness ratio.

Dow EVERCAP™
(Sustainable Solution)

High density polyethylene (HDPE) with a balance of stiffness, toughness, ESCR, heat resistance and organoleptic properties; can be used to replace PP in existing tooling – DMDA 1241.

Polypropylene

INVISTA PP

A versatile thermoplastic resin available in a wide range of formulations from general purpose homopolymer, random copolymer and impact copolymer grades to highly specialized resins for engineering applications.

LyondellBasell Pro-Fax™ PP

Typically used in injection molding applications and offers good cold temperature impact resistance.

Pinnacle Polymers PP

Homopolymers and impact copolymers that are proven performers providing excellent color and processability stability, good flow characteristics, and excellent organoleptic properties.

Avient PP

Homopolymers and copolymers formulated for demanding application which require high stiffness and good impact resistance. Impact strength, elastic modulus and material strength across wide temperature ranges.

Polystyrene

AmSty PS

AmSty general purpose polystyrene (GPPS) resins are designed to show exceptional clarity and attractive light-transmission properties, and provide chemical resistance.

Thermoplastic Polyester Elastomer

DuPont Hytrel®

Exceptional toughness and resilience, high resistance to creep, impact and flex fatigue, flexibility at low temperatures, good retention of properties at elevated temperatures, and resistance to industrial chemicals, oils and solvents.

SOLUTIONS FOR CAPS, CLOSURES & FITMENTS

Custom Solution Needs	Custom Solutions
<ul style="list-style-type: none">• Clean, accurate and efficient metering• Rapid and sustainable color development• Reduced waste and inventory• Fast and easy color changes	<p>ColorMatrix™ colors and other liquid concentrates can be combined with a variety of performance and barrier additives to create multi-functional formulations that multiply the advantages for your business.</p>
<ul style="list-style-type: none">• Antimicrobial• Antistatic• Flame retardance• UV stabilizing• Improved mold release	<p>Smartbatch™ color and additive concentrates are easy to use, practical and extremely cost-effective. A single formulation can make a huge difference in the quality of your products and also improve the efficiency of your manufacturing process.</p>
<ul style="list-style-type: none">• Approved for food contact in packaging• High quality aesthetic surface finish• Resistance to UV damage over time	<p>Versaflex™ thermoplastic elastomers offer a low compression set and silky feel. These grades meet application-specific needs for shock absorption and vibration damping, chemical resistance, and clarity. Able to adhere to a range of engineering plastic substrates, Versaflex elastomers often eliminate secondary operations for faster cycle times and reduce production costs.</p>
<ul style="list-style-type: none">• Improve production uptime with faster color changeovers• Reduce wasted melt puddle material• Reduce resin use during purging• Non-abrasive and safe to use on precision equipment	<p>OnCap™ Multi-Purge masterbatch additives are formulated to effectively clean process tooling and machinery during material or color changeovers. They are a cost-effective way to help maintain critical production uptime and increase manufacturing efficiencies.</p>

**Need support with bottles?
We can help! Streamline
your entire bottle-making
process—from the
bottle to the cap—with
Formerra.**



FORMERRA

Packaging Supplier Line Card

You face a unique set of challenges when designing for the packaging industry. In addition to maintaining an effective manufacturing and supply chain operation, you're challenged with designing products that must meet strict regulatory and quality assurance standards. At Formerra, we help you achieve these goals with our comprehensive portfolio of leading suppliers, on-time delivery and a host of services focused on helping you succeed.



FORMERRA PACKAGING SOLUTIONS



formerra.com

At Formerra, we're prepared to help you:

- Increase sustainability
- Optimize design and manufacturing
- Accelerate commercialization

Contact us today to learn more about how we can help you overcome your toughest challenges.

CAPS, CLOSURES & FITMENTS

Formerra can support every type of cap, closure or fitment for your packaging applications. With both liquid and solid polymer formulations, industry-leading expertise with colors and additives, and an in-house design service, Formerra is a powerful collaborator during packaging design, manufacturing and product marketing.

- Food and beverage packaging
- Industrial chemical packaging
- Personal care products
- Dairy bottles
- Detergent bottles
- Household cleaners
- Shampoo bottles

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