

AVIENT DISTRIBUTION PACKAGING SOLUTIONS

Blow Molded Bottles



BLOW MOLDED BOTTLES

Packaging applications need to protect internal contents, attract consumer attention, reflect the value of the brand and meet goals for recycling and sustainability. Whether brand owners and manufacturers are launching a new product line or improving existing packaging in a current product portfolio, perfecting design and streamlining manufacturing can be a complicated endeavor.

At Avient Distribution, 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 increase sustainability, optimize design and manufacturing, and accelerate commercialization.

Challenge Accepted.





BLOW MOLDED BOTTLES

Applications include:

- Food & beverage bottles such as milk jugs, non-carbonated drink bottles, squeezable bottles, food storage containers
- Industrial chemical bottles such as motor oil containers, bleach bottles, detergent bottles, household cleaners
- Personal care bottles such as shampoo and conditioner bottles, soap bottles

Packaging Solution Needs:

- Lightweight
- Malleable
- High-strength and stability
- Easily processed
- Resists chemicals and moisture
- Reusable

Polyethylene

Chevron Phillips Marlex® PE	Family of HDPE and LDPE with good stiffness & ESCR, exceptional processability and durability.
DOW LLDPE UNIVAL™ PE	Family of HDPE featuring various combinations of stiffness and toughness. Impact and environmental stress crack resistance (ESCR). Processability and downgauging opportunities.
DOW™ PE	LLDPE resin offers outstanding flex life, toughness and environmental stress crack resistance (ESCR) and is well-suited for use in blow molding applications such as small squeezable bottles.
Westlake Chemical PE	Family of LDPE offering an excellent balance of properties including good melt strength, flexibility, low neck-in and good adhesion to many substrates.
LyondellBasell Hyperzone™ PE	HDPE resin commonly used in industrial and household bottles with excellent processability and improved crack resistance.
Avient Edgetek™ Specialty Formulation	This portfolio includes high-temperature materials for elevated service temperature environments, high-modulus/structural materials for load-bearing and high-strength applications, and flame-retardant products.

Polypropylene

INVISTA PP	Family of homopolymers and random copolymers with autoclavable, heat stabilized, and produced without animal-derived components.
LyondellBasell Pro-Fax™ PP	Family of homopolymers, random and impact copolymer polypropylene products with a wide range of performance characteristics, from high stiffness to good impact and heat resistance.
INEOS Olefins & Polymers USA PP	Family of homopolymers and random copolymers offering clarified grade with a balance of stiffness, impact, and anti-stat properties.

Polyamide

Arkema PA	Patented polyamide-based thermoplastics alloys designed to offer improved dimensional stability, lower density, and better mechanical properties.
DuPont™ Zytel® PA	Polyamide resin products deliver high-performance benefits ranging from stiffness to heat resistance.

Copolyester

Eastman Eastar™ COPE	Copolyester resin with extraordinary toughness, superior chemical resistance, and barrier properties.
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Polyvinyl Chloride

GEON® PVC	Multi-purpose compounds with glass-like sparkle and clarity and UV protection. These vinyl packaging materials provide virtually limitless design capabilities while maintaining excellent impact properties.
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Polystyrene

AmSty PS

General purpose and high-impact resin designed to show exceptional clarity and attractive light-transmission properties, and provides chemical resistance.

Polycarbonate

Covestro Makrolon® PC

Thermoplastic that is extremely robust, lightweight with glass-like transparency and is impact resistant—even at low temperatures. It also has a high dimensional stability and is easily molded, yet displays excellent heat resistance with a glass transition temperature of up to 148°C.

Trinseo PC

Polycarbonate resins are manufactured using a proprietary production process and offer a distinctive combination of properties for applications in a broad array of markets.

Thermoplastic

Covestro Texin® Portfolio

Family of polyether-based thermoplastic polyurethane that is transparent, cold-flexibility, soft touch, wear resistant, chemical resistant, abrasion resistant, scratch resistant, tear resistant, and food-contact-compliant.

DuPont Hytel® Portfolio

Family of elastomers offering resilience, heat and chemical resistance, as well as strength and durability.

Tie Layer & Additive Uses

DOW ELVALOY™
High-Pressure Copolymer

This ethylene-ethyl acrylate (EEA) copolymer exhibits high flexibility and imparts low temperature toughness to a wide range of engineering resins.

DOW ELVAX™
High-Pressure Copolymer

An extrudable ethylene-vinyl acetate copolymer resin concentrate designed to modify the surface properties of films or coatings of Elvax® Resins or other compatible polymers.

Makrolon® is a trademark of Covestro Intellectual Property GMBH & Co.

Marlex® is a trademark of Chevron Phillips Chemical Company; Unival® is a trademark of Union Carbide Corporation; Hyperzone is a trademark of LyondellBasell Industries Holdings.

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Elvax™ is a trademark of Performance Materials NA, Inc.

Pro-Fax™ is a trademark of LyondellBasell Industries Holdings.

Zytel® is a trademark of DuPont Polymers, Inc.

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CUSTOM AVIENT SOLUTIONS FOR BLOW MOLDED BOTTLES

Custom Solution Needs	Avient™ Custom Solutions
<ul style="list-style-type: none">• Eliminate production interruptions for color sampling• Reduce iterations for color approval• Concentrates that are proven to work under blow molding conditions	<p>Eliminate downtime associated with color matching, and quickly prototype blow molded bottle samples to achieve a more accurate representation of your final packaging product, with the ability to test three wall thicknesses (10, 20 and 30 mm) to simulate three letdown ratios.</p>
<ul style="list-style-type: none">• Protect sensitive contents• Prevent Environmental Stress Crack Resistance (ESCR)• Protect from UV degradation• Enable easy twist-off and other functional designs	<p>Our colorant and additive teams are experts on how to optimize polymer designs, with a broad range of solutions for blow molded bottles that offer:</p> <ul style="list-style-type: none">• Oxygen and moisture barriers• UV absorption capabilities• Light-blocking properties• Drop impact performance• Anti-static performance• Ease of evacuation• Scratch and mar resistance• Organoleptic protection• Flavor preservation

Need support with caps, closures & fitments? We can help! Streamline your entire bottle-making process—from the bottle to the cap—with Avient Distribution.



AVIENT DISTRIBUTION

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 quality assurance standards. At Avient Distribution, 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.



AVIENT DISTRIBUTION PACKAGING SOLUTIONS



avientnow.com

At Avient Distribution, 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.

BLOW MOLDED BOTTLES

Avient Distribution can support every type of bottle blow molding application. With liquid and solid polymer formulations, colorants and additives, and an in-house color design service make us a powerful collaborator during bottle design, manufacturing and product marketing.

- Liquid food containers
- Food service containers
- Household chemical
- Industrial chemical
- Personal hygiene
- Cosmetics, fragrances and toiletries

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