Avient Corporation

Who We Are

Avient Corporation is a premier global provider of specialized and sustainable polymer materials solutions and services. We're focused on solving the world's most complex material science problems by creating innovative products that enhance application performance and protect the environment. To accomplish this, we combine talented, tenacious people with broad and deep manufacturing capabilities and exceptional service. Our customers include brand owners, OEMs, processors, and assemblers in the automotive, building and construction, consumer goods, electronic and electrical, healthcare, packaging, textiles, transportation, and wire and cable industries.

Our Story

Avient was formed in 2000 as PolyOne Corporation from the consolidation of The Geon Company and M.A. Hanna Company. In 1948, B.F. Goodrich created a vinyl plastic division that was subsequently spun off through a public offering in 1993, creating The Geon Company. Hanna was formed in 1885 as a privately held company and became publicly held in 1927. On July 1, 2020, the company completed what is collectively referred to as the Clariant Color Acquisition and changed its name to Avient Corporation. In September 2022, we proudly welcomed more than 1,000 new associates to our new Avient Protective Materials business, further expanding our growing composites portfolio with the globally admired brand of Dyneema®, the world's strongest fiber™. We've created a next-level specialty materials solutions company that addresses the demands of the rapidly changing world that lies before us. We're cutting a new path in specialty materials development, one where our distinctive problem-solving passion can have the deepest impact and enable us to conquer the challenges of the future we all share.

Our Mission

To enable our customers' innovation and sustainability goals through world-class products and services and excellence in four important cornerstones:

1. People
2. Products
3. Planet
4. Performance

Our Commitment to Sustainability

At Avient, we truly believe that the role material science plays in global sustainability is more important than ever. That's why we are creating the next generation of sustainable solutions. To help customers overcome their sustainability challenges, we enable:

- Greater use of recycled content
- Formulations with bio-polymers
- Lightweighting
- Reduction of volatile organic compounds (VOCs)
- Reduction of energy usage
- Protection of human health and safety
- Eco-consciousness
- Sustainable infrastructure

Examples include:

- Dyneema®, the world's strongest fiber™, enables unmatched levels of performance and protection for end-use applications, including ballistic personal protection, marine and sustainable infrastructure, and outdoor sports
- Unique technologies that improve the recyclability of products and enable recycled content to be incorporated, thus advancing a more circular economy
- Light-weighting solutions that replace heavier traditional materials like metal, glass, and wood, which can improve fuel efficiency in all modes of transportation and reduce carbon footprint
- Sustainable infrastructure solutions that increase energy efficiency, renewable energy, natural resource conservation, and fiber optic / 5G network accessibility

Avient also participates in numerous global sustainability initiatives. We are a founding member of the Alliance to End Plastic Waste and an American Chemistry Council (ACC) Responsible Care® company, and we participate in the United Nations Global Compact and align with U.N. Sustainable Development Goals (SDGs).

In 2020, we established our corporate 2030 sustainability goals, which include:

- Enabling 100% of our products for packaging applications to be recyclable or reusable
- Obtaining directly or contracting for 60% of electricity demand from renewable sources
- Reducing waste headed to landfills by 35% from our 2019 baseline

To learn more about our continued commitment to improving the lives of others through our increased sustainability efforts, download our full 2022 Sustainability Report.

Our Material Solutions

Avient enhances end-product performance and aesthetics with colorants, additives, modifiers, reinforcers, and specialty engineered materials. Our advanced portfolio consists of color, additives, inks, engineered polymers, and specialty solutions.

Color, Additives, and Inks: To improve the aesthetics, quality, color stability, and sustainability of recycled polymers, Avient offers a wide range of specialized solutions, including solid and liquid colorants and masterbatches, performance additives, plastisols, and inks. We also promote using bio-based polymers with color concentrates that are specially developed to perform well with bioplastics. Further, to support circularity, we developed a black colorant that permits black and dark polymers to be detected by near-infrared (NIR) automatic sorting equipment, allowing for correct recycling.

Highlighted sustainable solutions include:

- **Cesa™ Non-PFAS Process Aid for Extrusion** is for use in polyethylene (PE) and polypropylene (PP) applications. It reduces friction between the polymer and the metal during extrusion, comparable to a traditional processing aid, but is formulated without fluoropolymers, which may be classifiable as per- and polyfluorinated substances (PFAS).

- **Cesa™ Unify™ A4R Polyolefin Compatibilizer** is an innovative additive that enables the use of recycled polyolefins by creating a homogenous polymer mixture, bridging the gap between virgin and recycled polymers, promoting circularity and sustainability.

- **Cesa™ Nox A4R Additives for Enhanced Recycling** is an antioxidant that helps maintain the quality of recycled polyolefins by protecting against degradation that can cause defects such as black spots and gels.

- **Cesa™ Withstand™ Antimicrobial Additives for TPU Film in Medical and Outdoor Applications** are new grades of antimicrobial and antifungal additives developed to enhance the performance of thermoplastic polyurethane (TPU) film-laminated products and devices in applications where combating microbe development is highly important. It can help limit microbial growth, which can lead to odor, staining, discoloration, or loss of mechanical properties in outdoor, medical, aviation, marine, and industrial market applications that use TPU film as a waterproof or adhesive product.

- **Cesa™ Flame Retardant Additives, PTFE-Free and Non-Halogen for Polycarbonate** are new additives that are formulated without PTFE, which may be classifiable as part of per- and polyfluorinated substances (PFAS). They are also halogen-free in accordance with the IEC 61249-2-21 standard. Suitable for various polycarbonates, including recycled grades, these flame-retardant additives help achieve GWFI temperatures up to 960°C according to IEC 60695-2-12 testing protocols.

- **ColorMatrix™ Capture™ Oxygen Scavenger** is a groundbreaking oxygen-scavenging technology embedded in the closure for PET packaging that can enhance product preservation sustainably and has already received Critical Guidance Recognition from

the Association of Plastic Recyclers (APR). Available for trials with plans for commercial availability in late 2024 at Avient's new manufacturing facility under construction in Norwalk, Ohio.

- **ColorMatrix™ AAnchor™ Acetaldehyde Control Technology** is a specially formulated acetaldehyde scavenger for PET packaging developed to improve recyclability, enhance bottle quality, and meet compliance with regulatory limits.

- **ColorMatrix™ Amosorb 4020R rPET Booster** delivers consistent and effective oxygen scavenging performance on PET bottles with up to 100% rPET and provides compatibility with many different rPET grades. It also helps reduce the intrinsic yellowness and haze inherent in rPET usage.

- **ColorMatrix™ SmartHeat™ RHC** is a liquid dispersion process aid that, when added to preforms and bottles, helps to increase rPET's thermal stability and improve bottle quality and mechanical strength.

- **ColorMatrix™ Ultimate™ UV390R Light Barrier** is an ultraviolet (UV) absorbing additive technology suitable for both virgin and rPET that allows less than 10% UV light transmission up to 395 nm and helps achieve improved bottle blowing with enhanced recyclability features, including less rPET yellowing.

- In the area of bio-derived content, Avient offers **OnColor™ Bio Colorants** that are based on sustainable raw materials. These color concentrates perform well with bioplastics such as PLA, PHA, PHBV, PBS, and PBAT and do not compromise the organic recyclability of these resins.

- **Wilflex™ Revive™ Bio Plastisol Inks** are created with 50-59% bio-derived content, offering sustainable solutions for screen printing inks.

Engineered Polymer Solutions: Avient's specialty engineered materials include advanced composites, thermoplastics, medical polymers, thermoplastic elastomers (TPEs), long fiber technologies, and urethanes. To help customers optimize these materials, we deliver formulation expertise to meet specific material performance requirements, support services spanning the application development cycle from concept to commercialization, and supply reliability, including local support. Our dedication to sustainability has resulted in a growing array of engineering materials that incorporate recycled content or bio-based content and help reduce environmental impacts.

The following are highlights:

- **Nymax™ REC Recycled Nylon Formulations** **&** **Super Tough Nylon Formulations** include two new super tough nylon (PA) 6 and nylon (PA) 66 grades added to Avient's recycled content portfolio, each containing post-industrial recycled (PIR) content, resulting in up to 81% lower cradle-to-gate product carbon footprint than traditional alternatives made without recycled content. Additional standard and custom-formulated

PA66 and PA6 grades contain PIR and post-consumer recycled (PCR) content. Standard grades contain 20% to 100% recycled content.

- **Versaflex™ HC BIO BT218 TPEs** is a grade of bio-derived thermoplastic elastomer (TPE) developed specifically to handle the complexities of biopharmaceutical tubing and deliver excellent weldability, kink resistance, and low levels of extractables while offering the same performance as its prime counterpart but with a lower carbon footprint.

- **ThermoBallistic™ Thermoplastic Composite Panels** broaden Avient's portfolio of protective materials. These compression molded panels made with e-glass and thermoplastic resin systems offer a cost-competitive alternative to ballistic-resistant materials made with other fibers or thermoset resins. ThermoBallistic panels provide structural bullet-resistant reinforcement to meet UL 752 Level 3 ballistic rating for interior and exterior architectural surfaces and components at a lighter weight than traditional panel materials.

- **Complēt™ REC Long Fiber-Reinforced Composites** for injection molding that incorporate from 50% to 100% post-consumer recycled nylon 6 reclaimed from end-of-life fishing nets.

- **Syncure™ XLPE Cross-linkable Polyethylene Formulations with DBDPE-free Flame Retardants** in the Syncure XLPE 200 Series marks Avient's first DBDPE-free materials in this product line, offering an alternative flame-retardant choice for low-voltage wire and cable insulation without compromising performance.

- **Stat-Tech™ TPE Static Dissipative & Electrically Conductive Thermoplastic Elastomers** are formulated to offer electrical resistivity from 100Ω to 1010Ω. They can be used in applications for critical electrical components to help prevent electromagnetic and radio frequency (EMI /RFI) interference and the build-up of static electricity.

- **PTFE-Free LubriOne™ Internally Lubricated Formulations** are grades that extend Avient's LubriOne™ Formulations portfolio and are made without fluorinated lubricants such as polytetrafluoroethylene (PTFE). They are available across multiple polymer systems, including PA6, PA66, PC, POM, PBT, PPS, and PK, and provide comparable performance to conventional internally lubricated grades.

- **reSound™ REC 7310 TPEs for Automotive Interiors** are initial grades in the series with 80 and 90 Shore A durometers and contain 35 or 45% PCR content from recycled food packaging. They can also be customized and injection molded or overmolded to polypropylene (PP), making them useful for a range of interior applications. This includes door mats/mat pockets, center console trays, front and rear trunk liners, or components for instrument panels & dashboards. They are colored black to provide consistent and comparable aesthetics to prime grades for OEM-specific blacks. Additional colors are also possible.

- **reSound™ REC Thermoplastic Elastomers with Recycled Content for PC/ABS Overmolding** is Avient's first PCR-containing TPE technology developed primarily for overmolding polycarbonate (PC), acrylic butadiene styrene (ABS), and PC/ABS blends in applications from consumer electronics, cosmetics packaging, and personal care items to power tools and toys.

- **Edgetek™ PKE Polyketone Formulations** are specialty engineered polyketone (PK) thermoplastics that feature excellent chemical and wear resistance, low moisture uptake, dimensional stability, and high impact performance, and offer a cost-competitive and more sustainable alternative to nylons as they have a comparatively lower carbon footprint.

- **Gravi-Tech™ Density Modified Formulations Low Shrinkage 5200 MS Series** are new PP-based grades with low shrinkage, offering luxury packaging customers an alternative to acrylonitrile butadiene styrene (ABS) based materials, with the ability for manufacturers to use existing ABS molds. They are also suitable for electroplating, which delivers the look and feel of metal, making them a suitable choice for bottled alcohol and cosmetic caps and closures. Manufactured in Europe and commercially available worldwide, manufacturing may be translated to other Avient sites in North America and Asia.

- **Gravi-Tech™ REC Recycled Formulations and Gravi-Tech™ BIO Bio-based Formulations** are more sustainable grades based on recycled and bio-based resin and/or filler without sacrificing performance. Developed to mimic the luxurious look, weight, and feel of die-cast or machined metals by using select metallic fillers and thermoplastic resin. These are a cost-effective alternative to metal, useful for applications in luxury packaging and consumer goods, including caps and closures for cosmetics, bottle caps and boxes for spirits, and decorative knobs and grips for appliances, furniture, and automotive applications.

- **Maxxam™ BIO Bio-Based Polyolefins** are new grades that can be filled with up to 40% bio-filler and natural fillers from cellulose fiber, providing an alternative to conventionally filled polyolefins.

Specialty Offerings: Custom solutions comprise the majority of our business. We work with any base resin to tailor thermoplastic and elastomer formulations by combining advanced polymers, reinforcements, colorants, additives, and modifiers to achieve a comprehensive set of performance attributes. Avient is also focused on incorporating sustainable materials into our formulations to support our customers' sustainability goals.

Our New Advanced Tools and Resources for 2024

- **Product Carbon Footprint Calculator:** Avient's third-party TÜV Rheinland-certified Product Carbon Footprint (PCF) calculator evaluates the carbon footprint of our solutions to help provide an understanding of the environmental impact of end products.

- **ColorForward™ 2025:** Avient's annual color, material, and finish (CMF) forecasting guide that includes 20 colors and effects derived from societal trends likely to influence consumer color preferences and the design of consumer products in the future.

- **ColorNow™ Digital Service:** Avient's immediate color matching and an enhanced color design process for plastic manufacturers in Southeast Asia and Greater China, adding new features and functionality to leverage its digital potential and streamline the color design process via a mobile app and a web interface to help customers achieve significant time savings from color matching and selection to sampling, approval, ordering, and delivery.

- **Polymer Solutions Platform for EV Charging Equipment:** Avient's robust material solutions platform for electric vehicle supply equipment (EVSE) applications for the North American market. This portfolio of EVSE polymer solutions includes colorants, additives, and specialty engineered materials that can improve the performance and aesthetics of Level 1, 2, and direct current (DC) electric vehicle (EV) charging stations.

- **Enhanced Virtual Simulation Capabilities:** Avient's newly upgraded, advanced computer-aided engineering (CAE) capabilities. With these enhanced capabilities, Avient can now help customers more precisely predict the behavior of fiber-reinforced polymer materials in structural metal replacement applications to reduce design iterations and accelerate the speed to market.

- **Avient's Post-Consumer Recycled (PCR) Content Color Prediction Service:** This service uses proprietary software to provide a digital assessment of color possibilities in a given PCR material, including guidance on the maximum amount of PCR content possible and the concentration required to achieve the desired color. It can determine color options for new applications and how much PCR content can be used in future production of an existing application without affecting its signature color.

Our Specialty Services

- **Innovation Centers:** Located around the globe, Avient Innovation Centers help customers identify appropriate materials or create tailored formulations. Capabilities include color, design, manufacturing, production, prototyping, and part analysis.

- **ColorWorks™ and Other Color Services:** Avient helps customers differentiate their applications, from concept to commercialization, using Avient colorants. Under our color services umbrella, we offer color collaborative design through ColorWorks™ Design & Technology Centers, a highly specialized color service combining color technology and

expertise to support designers, marketing specialists, and brand managers. In January 2024, Avient designated its Phoenix location as the latest ColorWorks™ Design & Technology Center.

- **Avient Design:** Our team of industrial designers and project engineers also understand materials and molding and apply design for manufacturability principles. They follow a proprietary process of advanced design and detailed analysis.

Fast Facts

Global Headquarters

Avon Lake, Ohio, USA

Regional Headquarters

Pommerloch, Luxembourg

São Paulo, Brazil

Shanghai, China

130 facilities in over 40 countries worldwide

9,300 employees

$3.1 billion in sales

1/3 of current revenue from sustainable solutions

85% of new technology development programs support sustainability

Awards

Great Place to Work Certified (2020-2023)

Chemical Week – Best Sustainable Feedstock Initiative

Barron's 100 Most Sustainable Companies

Recognized as one of America's Most Responsible Companies by *Newsweek*

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