

Trusted Solutions to Make your Business Grow



AOC
Trusted Solutions



Combating corrosion for over 60 years with Atlac®

The Atlac® name is synonymous with corrosion resistant composites. Even before the Atlac® brand was officially registered in the early 1960s, these powerful products were proving their ability to withstand the most challenging chemical environments across a broad range of industries.

Customers worldwide have discovered that composites based on Atlac® products provide longer lasting, more cost-effective solutions than specialized corrosion-resistant metals and alloys in processes where safety and continuity of operations are crucial.

AOC will continue to advance the Atlac® range to answer evolving industry needs, while maintaining the highest levels of product performance, quality and consistency that our customers rely on.

The key Atlac® products include:

Bisphenol A Vinyl Ester

Atlac® F013A	General purpose, Superior alkali resistance
Atlac® 430	Higher heat resistance
Atlac® F010J	Increased processing versatility
Atlac® 5200 FC	Food Contact applications

Epoxy Novolac Vinyl Ester

Atlac® 590Z	Improved heat resistance
Atlac® F086A	Elevated heat resistance

Vinyl Ester Urethane

Atlac® 580	General purpose
Atlac® 580 ACT	Thixotropic, Hand Lay-up
Atlac® E-Nova FW 2045	Higher heat resistance, Superior processing

Advice on the chemical resistance of AOC resins

When choosing formulations for corrosion resistant applications, it is important to select products that give the right performance and are suitable for the job in question. AOC has a vast knowledge and experience to help you in making the best resin selection for your application exposed to a specific chemical environment, temperature, exposure time.

We can offer insights through our Chemical Resistance Information service, which builds on years of chemical resistance testing on our resins, combined with the experience gained in many projects around the world. Please contact your AOC Account Manager or Technical Service Manager for more information, or contact us through chemical.resistance@aocformulations.com

In order to provide you with our best recommendations, we ask that you provide us with details on the specific

application, the chemical environment where the part(s) is/are used, including chemical type(s) and concentration(s), pH range, operating temperature, design temperature, and any other relevant information that may affect long term part performance.

More information on Atlac® resins

You can find the most common AOC products through the [Product Selector](#) on our website. Here you can also request Products Datasheets. Additional product information is available through the Atlac® Product Guide, which can be found on the [Download](#) page. Also, please visit our [website](#) to find the latest case studies on Atlac® formulations.

Your AOC Account Manager and Technical Service Manager are happy to advise you in selecting the right products for your process and end use application.

Carbon Fiber SMC: High Performance Delivered at Industrial Scale

Combining unique AOC formulations with carbon fibers into SMC enables the reliable manufacture of components with superior mechanical strength, low density, E-coat capability and low part emissions, while maintaining the design flexibility typical for composites. Available AOC products include Daron® 8151 (styrene-based) and Daron® 8180 (styrene-free).

Making SMC parts with Carbon Fiber

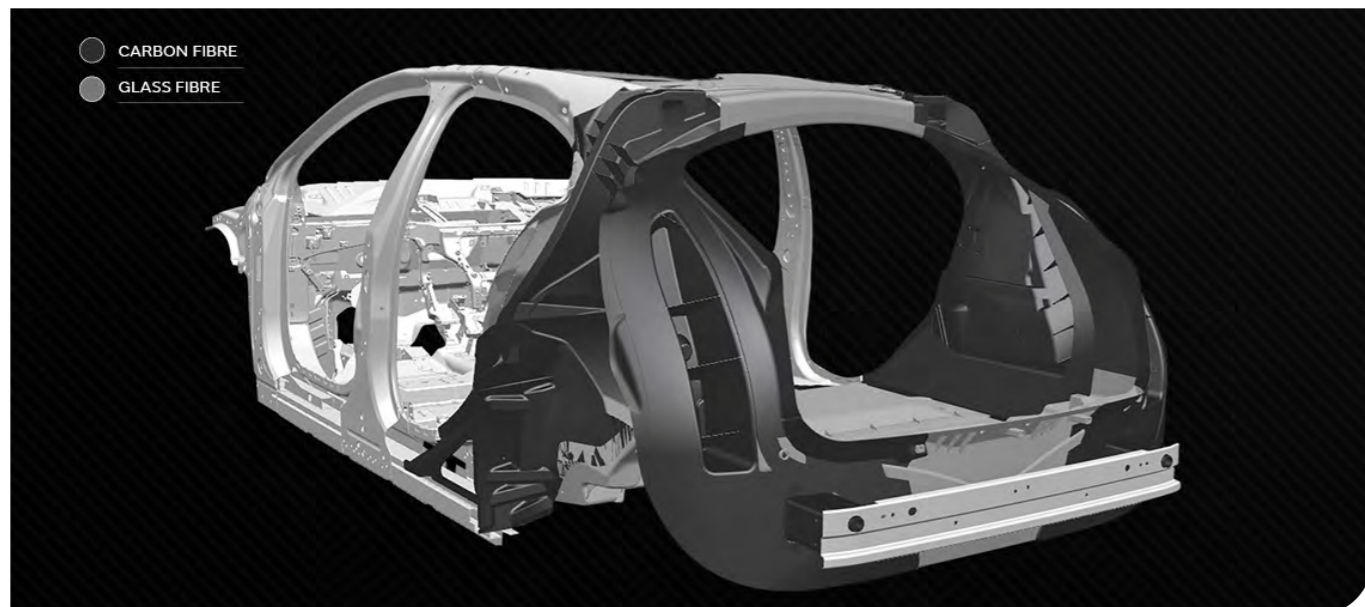
In recent years, novel SMC materials based on carbon fiber have become commercially available and are now applied at full industrial scale to produce ultra-light structural parts that outperform their equivalents in aluminum and steel.

AOC has developed a unique Daron® high performance technology for use in SMC that enables chopped CF molded parts with the mechanical performance of

Epoxy Resin CF-SMC to be manufactured with the ease of UPR and Vinyl Ester SMC. The combination with excellent flow behavior during molding, means that the resulting mechanical properties of the parts are truly outstanding (Tensile Modulus at 43 GPa, Tensile Strength over 300 MPa).

Scale up for manufacturing

By working closely with its customers throughout the supply chain, AOC has contributed to producing CF-SMC cost-effectively on an industrial scale, to be used in the engineering and production of structural interior automotive parts. These combine benefits of great mechanical properties, processing robustness in larger series, cost efficiency, extremely low part emissions, and design freedom. Please check out this Blog on the [Tucana](#) project for further detail.



Committed to Supporting Customers Around the World

AOC has a large number of manufacturing operations in the Americas, Europe, China and India. This large footprint enables to align manufacturing processes, quality systems and best practices, which should be highly beneficial for our customers in all regions.

In December 2020 AOC completed the acquisition of the Unsaturated Polyester Resin (UPR) manufacturing operations in Ústí nad Labem (Czech Republic).

This will allow AOC to further improve service and logistics to its customers in Central/ Eastern Europe as well as in Germany, and will make new products available for customers around Europe.

In September 2022, AOC acquired the ownership of Deltech Europe Ltd., and is now operating a UPR manufacturing plant in Haverhill (UK). Deltech has been a long-standing partner for AOC in Europe and has been supplying AOC customers with resins for many years as a toll manufacturer. Therefore, the acquisition was a very logical transition, reinforcing the existing set-up. We are convinced that this investment will allow AOC to further strengthen its ability to serve customers in the growing composites market in the UK.



Americas	
Collierville, TN	Two Plants, HQ, R&D Hub
Valparaiso, IN	Plant and R&D Satellite
Guelph, Ontario	Plant
Mexico City, MEX	Plant
Kathleen, FL	Plant
Perris, CA	Plant
Neal, WV	Plant

Europe	
Schaffhausen, CH	HQ
Zwolle, NL	R&D Hub
Schoonebeek, NL	Plant
Filago, IT	Plant and R&D Satellite
Ústí nad Labem, CZ	Plant
Compiègne, FR	Plant
Haverhill, UK	Plant

Asia	
Nanjing, CN	Plant and R&D Hub
Wada, IN	Contract Manufacturer



Value from Products based on Post-Consumer rPET Waste

For the longest time, customers have been successfully using AOC formulations to produce composite parts, ranging from bathtubs and shower trays, to sewer repair systems and water transportation networks.

Fossil-based raw materials used for these formulations may become scarce in the future. Like our customers, AOC is on a journey to become more sustainable and wants to reduce its impact on the environment. Therefore, AOC is increasingly using post-consumer recycled PET bottles as raw material, and making available to the market a broad range of rPET-based products covering the majority of composites transformation processes.

Sustainability

The bottles don't end up as landfill or in the ocean but are given a second life. This does take more effort in our production, but we are convinced it's worth it. Like our customers we want the future to be sustainable and reduce our joint impact on the environment.

NEXT-label

To help our customers create composite parts with less environmental impact, we have introduced the NEXT Eco-label. With this label we make it easy to select sustainable products from the AOC portfolio, like our rPET-based formulations.



Key rPET-based products from AOC

CIPP/ Relining Synolite™ 6211-T-20	Thixotropic, excellent filler wet out
SMC BMC Palapreg P 40-01	Thickenable, low shrinkage
Marine Synolite™ 4600-G-1 Synolite™ 4600-P-1	Infusion, Lloyd's approved Hand lay-up, Lloyd's approved
Pultrusion Palatal® P 42-01	Fiber compatibility, low shrinkage
Bathroom and Sanitary Synolite™ 4320-P-1 Synolite™ 4320-L-1 Synolite™ 4320-L-2 Synolite™ 1112-G-1	Hand lay-up, acrylic adhesion Hand lay-up, acrylic adhesion, white Hand lay-up, acrylic adhesion, white Casting, excellent filler wet out
Continuous Panel Synolite™ 8421 Series	Excellent fiber wet out
Hand Lay-up Synolite™ 4320-L-3 Synolite™ 4320-P-1 Synolite™ 4320-P-2 Synolite™ 4210-L-1 Synolite™ 1185-P-1	Hand lay-up, thixotropic Hand lay-up, thixotropic, LSE Hand lay-up, thixotropic, LSE Hand lay-up, thixotropic, higher HDT Hand lay-up, thixotropic, LSE, thick laminates
Casting Synolite™ 1210-U-1 Synolite™ 1210-U-2 Synolite™ 1112-G-1	Polymer concrete, excellent filler wet out Polymer concrete, excellent filler wet out Excellent filler wet out
Filament Winding Palatal® P 42-01 Palatal® P 42-02	Excellent fiber wet out, water resistance Excellent fiber wet out, water resistance



High quality

The rPET formulations we make are typically more heat-resistant than comparable Ortho and DCPD formulations. They're also more resilient and allow for beautiful products to be created.

AOC stands for quality consistency, close collaboration with our customers, and innovation for creating sustainable products.





Turning Up the Heat with Neomould® 6800 Series

Neomould® 6800-I-1

High heat resistance
Hand lay-up
Unfilled system

Longer tool life
Improved dimensional consistency

Neomould® 6800-G-1

High heat resistance
Vacuum infusion
Extra-low viscosity

Increased production
Lower styrene emissions (vs. UPR).
Increased tool size (vs. UPR)
Reduced tool manufacturing cost (vs. Epoxy)

Neomould® 6800-W-1

High heat resistance
Hand lay-up
Filled system

Longer tool life
Improved dimensional consistency

AOC is introducing the new Neomould 6800 series for manufacturing composite tooling. For cost-effective manufacturing of composite components in small to medium sized production series (up to 500-1000 parts per year), composite molds are broadly used across the industry. While they bring the designer the ability to create unique shapes, composite tools also enable the manufacturing of large components like wind turbine blades, boats, and façade panels for buildings.

Great benefits

- Excellent surface quality through zero-shrinkage
- Fast resin application and through-cure during tool manufacturing in comparison with Epoxy tooling systems
- Longer tool life and excellent reproducibility of surface quality during tool use
- Tool capability to take higher peak exotherm, higher post-cure temperatures
- Enables to make great tools at high length with infusion version
- Easy repair of tool surface in case of eventualities



Leading in Sustainability

Next™ Eco-label

AOC has introduced the Next™ Eco-label for better identifying products that help to reduce emission of VOCs, use feedstock from bio-sources or from recycled waste streams. These products are sold by AOC under different brand names, including Atlac®, Beyone™, Neoxil®, Palatal®, Palapreg® and Synolite™.

What makes these formulations unique is that they all enable AOC's customers to run their business in a more sustainable way and help create products and solutions with reduced environmental impact. More information about the Next™ Eco-label you can find on the AOC website ([Next™ Eco-label background](#), [Next™ products](#)).

External recognition by EcoVadis

AOC is setting high standards in Environmental, Social, and Ethical performance, while actively promoting sustainable products and solutions. As a recognition for its performance and the company's demonstrated commitment to Sustainability, AOC has received a Gold Rating from EcoVadis for its European business in 2023.

Objective ESG Assessment

Environmental, social, and ethical performance – or Sustainability – is an essential factor for smart business today. Like many other companies, AOC is actively working on improving its transparency and sustainability practices. For that reason AOC engaged EcoVadis to assess the quality of its Corporate Social Responsibility (CSR) management system, as well as processes and practices.

AOC's rating was in the top 4 % percentile of chemical companies, which clearly indicates the company is a front runner in the industry.



Strength and Much More with Neoxil® Fiber Sizing Products

The performance of composite parts strongly depends on the interaction between fiber reinforcements and resin matrix (both for thermoplastic and thermoset resins). Therefore, the selection of the sizing applied onto the fibers is very important, both for protecting the fibers during processing and for ensuring the right compatibility with the resin.

Sizing formulations based on Neoxil® Emulsions from AOC can be easily applied, and have a track record of protecting the fibers from breaking during winding, unwinding and handling in the manufacturing process. In addition, they protect the fibers against abrasion during processing (thereby reducing “fuzz”), and help binding filaments together for the fabrication of fiber strands.

Delivering Innovation

AOC can help you to push the limits of fiber manufacturing and composite part performance. Taking an integral approach to new product development, we use our full expertise in quality resins, material science, testing and certification, and sizing chemistry in order to shape new technologies and applications. Through building strong relations with fiber manufacturers and the entire supply chain, we support you in application development and market growth. We know that co-creation and information sharing help to significantly reduce time-to-market.

Quality Emulsions

Manufacturing high quality fibers is a prerequisite for your business success. You need consistent and reliable input materials. Resin-in-water emulsions that meet your specifications day after day, resulting in consistent performance and a predictable output at low or large production volumes. AOC can provide you with products of outstanding quality consistency so you know your products perform in the right way and support building loyalty with your customers.

Neoxil® Benefits

- Reliable processing
- High volume manufacturing
- Protection and low fuzz
- Peace-of-mind on performance
- Versatility and flexibility
- Tailored to specific end use applications

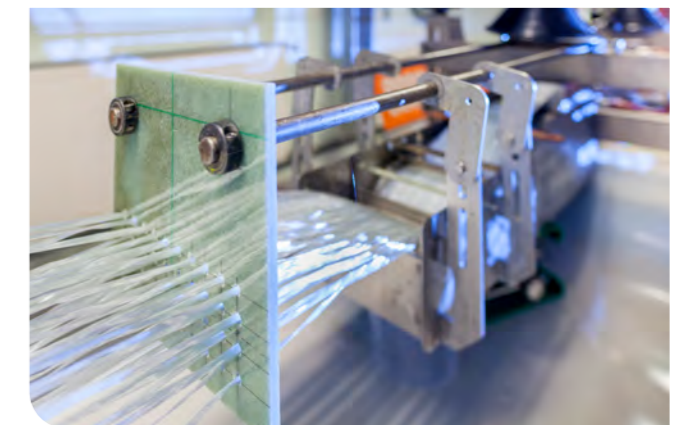
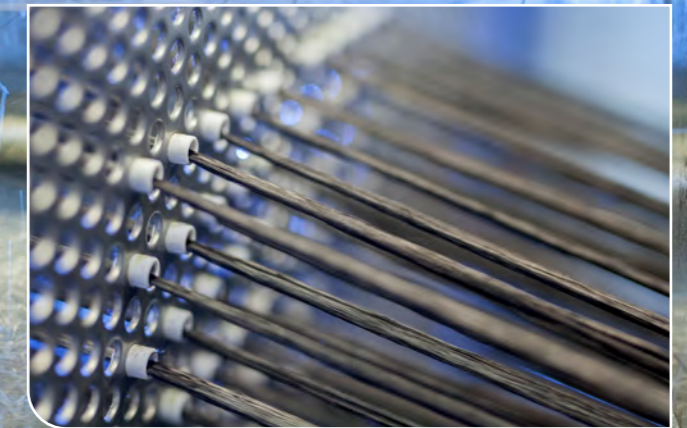
Your Trusted Partner

The AOC team is dedicated to finding the right solutions to help drive your success. We understand your business and will work together to determine how AOC products and service can help optimize fiber performance and meet your customers' requirements.

AOC experienced professionals are experts in both product performance and manufacturing processes. From our polymer scientists, manufacturing, technical service and sales experts, the AOC team will be a true partner for your business.

Broad product range

We have developed the capability to translate performance requirements into fiber sizing solutions. AOC offers a broad Neoxil® product portfolio to the reinforcement fiber market, with polyester, epoxy, modified epoxy, polyurethane, vinyl ester, polypropylene emulsions and additive chemistries. Then, let's talk performance and help you to increase your competitive advantage and business success.



Please contact your AOC Technical Service representative for support in selecting the best suitable Neoxil® product for your glass, carbon, basalt and high performance fiber sizing application, or send an email with your inquiry to neoxil@aocformulations.com

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Acknowledgment

AOC would like to extend its thanks to Cranchi, Indupol, the Tucana project, Verstedden for their support in the making of this brochure.

Photography

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The logo for AOC, consisting of the letters 'AOC' in a bold, blue, sans-serif font. The 'A' and 'O' are connected at the top. A horizontal red line is positioned below the letters.

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