

Trusted Solutions to Make your Business Grow



Atlac® resins: Combating corrosion for over 60 years

The Atlac® name is synonymous with corrosion resistant composites. Even before the Atlac® brand was officially registered in the early 1960s, these powerful resins 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® resins 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® resins include:

Bisphenol A Vinyl Ester
Atlac® F013A
General purpose,
Improved alkali resistance
Atlac® 430
Higher heat resistance
Atlac® F010J
Increased processing
versatility
Atlac® 5200 FC
Food Contact applications

Epoxy Novolac Vinyl Ester
Atlac® 580Z
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 resins 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@aocresins.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® resins.

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

Making SMC parts with Carbon Fiber

Combining the unique Daron® 8151 resin with carbon fibers into SMC enables the reliable manufacture of components with superior mechanical strength, low density, E-coat capability and low emissions, while maintaining the design flexibility typical for composites.

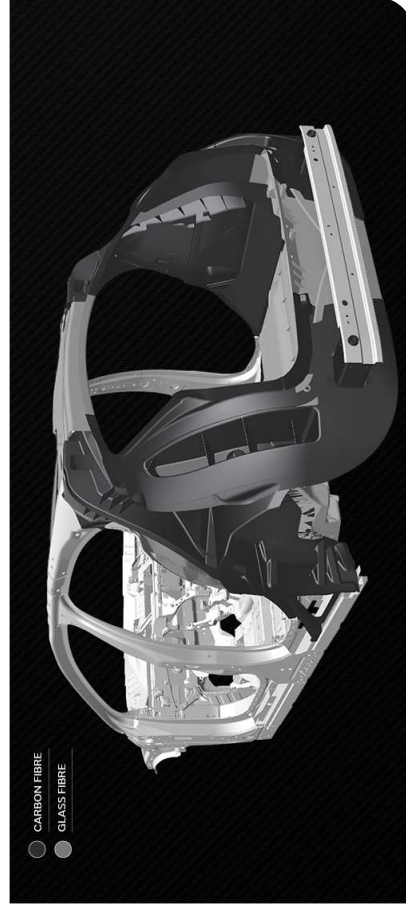
In recent years, novel SMC materials based on carbon fiber have become commercially available and are now applied at full industrial scale to produce ultra-light structural parts that outperform their equivalents in aluminum and steel.

AOC has now developed a unique Daron® polyurethane hybrid resin 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.



AOC UPR Manufacturing Operations in Czech Republic

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

Customer commitment

AOC is strongly committed to growing the composites industry and to supporting the customers in the Central/ Eastern European region. This acquisition enables AOC to significantly extend its manufacturing

footprint, and further adds to the company's global presence. AOC is convinced this enables us to further align manufacturing processes, quality systems and best practices, which should be highly beneficial for our customers.

Special capabilities

The UPR plant at the Spolchemie site in Ústí nad Labem is located 70 km Southeast of Dresden, Germany. Besides state-of-the-art UPR production equipment, the plant has unique capabilities for manufacturing sustainable resins based on recycled PET.



Value from green AOC resins

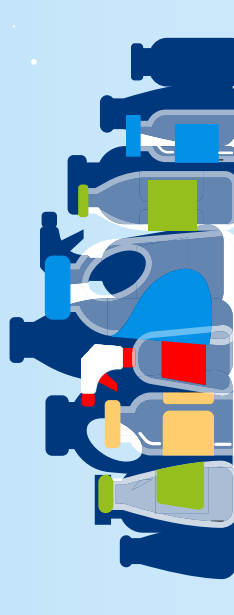
For the longest time, customers have used AOC resins to make bathtubs, kitchen countertops and even sewer repair systems. Fossil-based raw materials used for different types of plastics may become scarce in the future. Therefore, we like to maximize the use of post-consumer recycled PET bottles for making quality resins.

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 PET-based resins.



Key PET-based resins from AOC

Hand lay-up/ Spray-up

H432-AOC-20 General purpose
F421-TMA-30 Higher heat resistance
C432-COA-15 Acrylic adhesion
H432-WZBG-10 Acrylic adhesion, White

Casting

A421-PCS-00 Polymer concrete
Synthite 1112-G-1 Acrylic adhesion

Filament winding

F421-BBC-00 General purpose

CIPP/Relining

L421-ALV-20 Hot Cure installation

High quality

The PET resins we make are typically more heat-resistant than comparable Ortho and DCPD resins. 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
output/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 resin 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 resin 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 Syndlie™.

What makes these resins 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 web site (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 April 2021.

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 5 % percentile of chemical companies, which clearly indicates the company is a front runner in the industry.



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