Atlac® 430

Vinyl ester resin for corrosive environments

Components based on Atlac® 430 feature high mechanical strength and exhibit excellent resistance to chemicals and heat.

With Atlac® 430 resin you can make strong and durable parts both with carbon and with glass fiber.

Benefits

- Continued process operation
- Resisting elevated temperatures
- Freedom of design
- Low cost of ownership
- Can be used with carbon and glass fiber

Major applications

Atlac® 430 can be used in all fabrication methods, but is especially adapted to meet the requirements of filament winding, centrifugal casting, pultrusion, hand lay-up and spray-up applications.

Atlac® 430 is medium reactive and medium viscous. Atlac® 430 provides resistance to a wide range of acids, alkali, and bleaches for the use in corrosive environments in the chemical processing industry.

The favorable combination of thermal resistance and elongation makes this resin suitable for applications exposed to intermittent temperatures.

Certifications and Approvals

Atlac® 430 conforms to type 1310 according to DIN 16946/2 and is classified group 5 according to DIN 18820/1. According to EN12131/2, Atlac® 430 is classified group 6.

Product Specifications

Property	Value	Unit	TM
Appearance	Clear		TM 2265
Color Lico APHA	0 - 5,5	APHA	TM 2017
Gel time 25 until 35 °C	10 - 17	min	TM 2625
Peak temperature	140 - 165	℃	TM 2625
Peak time	18 - 28	min	TM 2625
Solids content	59 - 65	%	TM 2033
Viscosity 23 °C, 100 s^{-1}	400 - 550	mPa.s	TM 2013

Reactivity @25℃: 100 g resin mixed with 1.0g NL 49P (Akzo Nobel) and then mixed with 2.0 g Butanox LPT (Akzo Nobel).

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Liquid resin typical properties

Property	Value	Unit	TM
Flash point	33	°C	TM 2800
Stability (Solid, dark, 25 °C)	6	month	25 °C, dark, TM 2303

Unfilled castings typical properties

Property	Value	Unit	TM
Dielectric Strength	120	kV/mm	DIN 53481
Flexural E-Modulus	3.4	GPa	ISO 178
Flexural strength	150	MPa	ISO 178
HDT	105	°C	ASTM D648
Impact strength unnotched spec	28	kJ/m²	ASTM D4812
Surface Resistivity	1	10^{13} Ω	DIN 53482
Elongation at break	6.1	%	ISO 527-2
Tensile modulus	3.6	GPa	ISO 527-2
Tensile strength	86	MPa	ISO 527-2

Cured with 1g Butanox® LPT (AkzoNobel) and 0.5g NL-49P added to 100 g resin. Curing 24h at room temperature and post-curing 24 hrs at 80°C. For HDT and Tg, post-curing 24 hrs at 120°C.

Cured reinforced resin typical properties

Property	Value	Unit	TM
Density 20 °C	1440	kg/m³	20 °C, TM 2160
Flexural Modulus	10	GPa	ISO 178
Flexural strength	210	MPa	ISO 178
Glass content	38.6	%	ASTM D2584
Outer fiber strain	6.5	%	ISO 178
Tensile modulus	10	GPa	ISO 527-2
Tensile strength	138	MPa	ISO 527-2

Brochures

You can find additional information through the Atlac® Product Guide. For detailed information on the chemical resistance of Atlac® resins, please consult our Chemical Resistance Guide. Both brochures are available for download from the AOC web site (www.aocresins.com).

Storage Guidelines

The resin should be stored in a dark and dry place at temperatures between 5 °C and 30 °C. Shelf life is reduced when resin is stored at higher temperatures and the properties of the resin might change during storage.

The shelf life of styrene containing vinyl ester will be significantly reduced when exposed to light. Therefore, store in dark and in 100 % light tight containers only. Exposure to direct sunlight should be avoided.

Material Safety

A Material Safety Data Sheet of this product is available on request.

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Test Methods

Test methods (TM) referred to in the table(s) are available on request.

ISO 9001:2015 Certified

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2015 standards. This certification recognizes that each AOC facility has an internationally accepted model in place for managing and assuring quality. We follow the practices set forth in this model to add value to the resins we make for our customers.

AOC. Trusted Solutions

AOC is the leading global supplier of specialty formulations and solutions which enable customers to create robust, durable, and versatile products and components for applications in Coatings and Protective Barriers, Colorants and Visual Effects, Adhesives and Specialties, and conventional Composites. With strong capabilities worldwide in manufacturing and science, the company works closely with customers to deliver unrivaled quality, service, and reliability for today and create innovative solutions for tomorrow.

Contact us for more information

We will help you to choose the right solution for your business.

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