

Atlac® F086A

High heat Novolac Vinyl ester resin for demanding corrosive environments

With Atlac® F086A resin you can make strong and durable parts with excellent heat resistance.

Components based on Atlac® F086A feature excellent thermal and chemical resistance against solvents, acids and oxidizing media like chlorine.

Benefits

- Resistance to acids and superior resistance to many organic solvents
- Suitable for moldings that are subjected to particularly high temperature applications
- Low maintenance and low cost of ownership
- Continued operation of process equipment
- Performance reliability

Major Applications

Engineering companies and manufacturers of tanks, pipes and processing equipment are looking for material solutions that can continuously withstand chemicals, water and elevated temperatures. They know that composite components based on Atlac® resins can survive harsh environmental conditions with minimal maintenance cost.

Process operators can run their processes smoothly and without interruption, because they rely on the excellent durability and reliability of parts based on Atlac® F086A resin.

Atlac® F086A can be used in all fabrication methods, but is especially adapted to meet the requirements of filament winding, centrifugal casting, hand lay-up and spray-up processes.

Product Specifications

Property	Value	Unit	TM
Solids content	61 - 67	%	TM 2033
Viscosity 25 °C, Brookfield	375 - 450	mPa.s	TM 7001
Gel time 25 °C	24 - 35	min	TM 7103
Peak temperature(Tmax)	175 - 225	°C	TM 7103
Stability 120 °C	60	min	TM2300C

25°C Gel time with 0.3% Cobalt 6%, 0.05% DMA and 2.0% CHP** (90% active)

Liquid			
Property	Value	Unit	TM
Styrene content	37	%	
Specific gravity	1.08	-	

Solid Unfilled			
Property	Value	Unit	TM
Flexural strength	155	MPa	ISO 178
Flexural E-Modulus	4.2	GPa	ISO 178
Tensile strength	83	MPa	ISO 527-1
Tensile modulus	3.8	GPa	ISO 527-1
Elongation at break	2.8	%	ISO 527-1
HDT	166	°C	ISO 75A
Tensile strength	83	MPa	ASTM D638
Tensile modulus	3.8	GPa	ASTM D638
Elongation at break	2.8	%	ASTM D638
Flexural strength	155	MPa	ASTM D790
Flexural E-Modulus	4.2	GPa	ASTM D790
Barcol Hardness	41		ASTM D2583

Application Guidelines

Maintain shop temperatures between 18°C and 32°C and humidity between 40% and 90%. Consistent shop conditions contribute to consistent gel times and will help the fabricator make a high quality part.

Cumyl hydroperoxide is suggested as a catalyst because Atlac® F086A is a reactive resin. Finished part surfaces that have been cured at room temperature in contact with air should be relatively tack free. They may melting point 46-48°C) in styrene may be added to the last resin layer to provide a tack free surface.

The use of cumene hydroperoxide catalyst is suggested since the resin cures quickly. If the composite is thin, high dimer MEKP catalysts can be used.

Optimum cure and performance may be obtained by post curing room-temperature cured laminates for three to six hours at 90-100°C.

Due to the excellent curing characteristics of Atlac® F086A resin, complete all secondary bonding as soon as possible. Exposing the laminate to sunlight will result in severe secondary bonding problems. After 48 hours of cure, it may be necessary to abrade the laminate with 16-24 grit to insure good secondary bonding, especially if the surface of the laminate is resin rich. Avoid low fiberglass content and resin puddling.

The gel times shown are typical but may be affected by catalyst, promoter, inhibitor concentration, resin, mold, and shop temperature. Variations in gelling characteristics can be expected between different lots of catalysts and at extremely high humidities. Pigment and/or filler can retard or accelerate gelation. It is recommended that the fabricator check the gelling characteristics of a small quantity of resin under actual operating conditions prior to use.

Storage Guidelines

The resin should be stored indoors in a dry place at tempera tight and undamaged packaging.

The properties of the resin may change slightly during storag

Material Safety

A Safety Data Sheet (SDS) of this product is available on request.

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 resins and specialty materials which enable customers to create robust, durable and versatile products and components. With strong capabilities around the world 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. Partner with AOC and we will work together to find the right solutions for your business.

Contact us for more information

We will help you choose the right resin solution.

Tel.: + 45 4485 0500
web@monofiber.dk

Monofiber
KOMPOSIT INDUSTRIENS BEDSTE BRANDS

AOC
Trusted Solutions

AOC is a registered trademark of the AOC group of companies.

The user is held responsible for checking the quality, safety and all other properties of our products prior to use. The information and recommendations contained herein are to the best of our knowledge accurate and reliable, but no rights whatsoever may be derived by any party other than those expressly agreed to with a selling entity of the AOC group of companies in a legally binding agreement. AOC hereby makes no warranty of any kind, express or implied, including those of merchantability and fitness for purpose. Unless explicitly agreed to in writing by AOC otherwise, all offers, quotations, sales and deliveries of AOC products are subject to the general conditions of sale of AOC. Altek®, Attac®, Beyone®, Daron®, FirePel®, NeoMould®, Neoxil®, Palatal®, Palapreg®, Pultru®, Synolite™, Vipel®, the AOC™ name, the AOC™ logo and the Trusted Solutions™ logo are the registered trademarks of the AOC group of companies