Atlac® F013A

Versatile Vinyl ester resin for corrosive environments (especially alkali)

Components based on Atlac® F013A feature high mechanical strength and exhibit excellent resistance to chemicals (especially alkali environments) and heat.

With Atlac® F013A resin you can make strong and durable parts with excellent corrosion resistance.

Benefits

- Continued operation of process equipment
- Resisting elevated temperatures
- Great mechanical strength and ductility
- Low maintenance and low cost of ownership
- Improved resistance to alkali environments

Major Applications

Atlac® F013A is medium reactive and medium viscous. Atlac® F013A 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® F013A has been certified by DIBT.

Product Specifications

Property	Value	Unit	TM
Appearance	Hazy		TM 2265
Solids content	52 - 56	%	TM 2033
Viscosity 23 °C, 100 s^{-1}	340 - 440	mPa.s	TM 2013
Acid value	3 - 9	mg KOH/g	TM 2401
Gel time 25 until 35 °C	19 - 24	min	TM 2625
Peak time	33 - 40	min	TM 2625
Peak temperature	130 - 155	°C	TM 2625
Stability 120 °C	60	min	TM2300C
Water content	0 - 0.1	%	TM 2350

TM 2013 conditions: Z2/100/23°C

TM 2625 conditions: 100 g + 1.5 g Cobalt accelerator (1%) + 0.50 g DMA (10%) + 2.0 g (MEKP) Medium reactive Methyl Ethyl Ketone Peroxide

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Liquid			
Property	Value	Unit	TM
Density 23 °C	1100	kg/m³	TM 2160
Flash point	33	°C	TM 2800

Solid Unfilled			
Property	Value	Unit	TM
Density 23 °C	1040	kg/m³	DIN 53479
Flexural strength	150	MPa	ISO 178
Flexural E-Modulus	3.7	GPa	ISO 178
Tensile strength	88	MPa	ISO 527-1
Tensile modulus	3.2	GPa	ISO 527-1
Elongation at break	6.6	%	ISO 527-1
HDT	111	°C	ASTM D648

Application Guidelines

Gel times shown 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.

Keep full strength catalyst levels between 1.0% - 2.0% of the total resin weight.

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.

Finished part surfaces that have been cured at room temperature in contact with air should be relatively tack free. They may not, however, be fully cured and are thus not as resistant to chemicals as a fully cured part. If no further laminating is planned, a 10% solution of 5% paraffin wax solution (MP 46-48°C) in styrene may be added to the last resin layer to provide a tack free surface.

Optimum cure and performance may be obtained by post curing room temperature cured laminates for two hours at 70-100°C.

Room temperature curing by means of cobalt acceleration should be completed with low hydrogen peroxide content MEKP catalyst to minimize foaming.

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 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 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 to choose the right resin solution.

emea@aocresins.com

Europe, Middle East & Africa
+41 52 6441212
emea@aocresins.com

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