

Atlac[®] 430 ACT

Standard epoxy vinyl ester resin for hand lay-up and spray process

Atlac[®] 430 ACT features perfect anti-osmosis and long-term heat resistance. Suitable for marine and tooling making.

Benefits

- Good chemical resistance and good hydrolysis resistance
- Outstanding mechanical property
- Heat resistance
- Good resistance to dynamic load carrying
- CCS /LR certification

Chemical/Physical Nature

Atlac[®] 430 ACT is a pre-accelerated thixotropic, high grade bisphenol A vinyl ester resin.

Application

Atlac[®] 430 ACT is especially adapted to meet the requirements of chemical resistance and outstanding mechanical property. Such as tank, vessel and device, chemical resistance protection, water conservancy project, pipe repair, anticorrosive floor and toolmaking etc. FRP made from Atlac[®] 430 ACT is good in heat resistance and dynamic load carrying. It is suitable for hand lay up and spray up applications. The resin is recommended for the fabrication of chemical resistant equipments, tooling making and marine applications.

Atlac[®] 430 ACT has been approved by China Classification Society (CCS) and Lloyd's Register of Shipping(LR) for boat building.

Product Specification

Property	Value	Unit	TM
Appearance	Hazy	-	TM 2265
Solids content, IR drying	48-53	%	TM 2033
Acid value	3-8	mgKOH/g	TM 2401
Viscosity @23°C	400-500	mPa.s	TM 2013
Gel time(25°C to 35 °C)	35-55	min	TM 2625

Remarks

Reactivity measurement: 2.0 g Butanox[®] M50 added to 100 g resin.

Liquid resin typical properties

Property	Value	Unit	TM
Flash point	33	°C	TM 2800
Stability, no initiator, dark, 25 °C	3	Month	-

Unfilled castings typical properties

Property	Value	Unit	TM
Tensile strength	86	MPa	ISO 527-2
Tensile modulus	3.2	GPa	ISO 527-2
Tensile elongation	5.1	%	ISO 527-2
Flexural strength	150	MPa	ISO 178
Flexural modulus	3.3	GPa	ISO 178
HDT	117	°C	ISO 75-2
Tg	140	°C	ISO 6721-2
Unnotched impact strength	20	kJ/m ²	ISO 179

Curing conditions

Cured with 2.0 g Butanox[®] M50 added to 100 g resin. After 24h at RT followed by post curing for 3 h at 100 °C.

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.

Test Methods

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

Processing Guidelines

- A. Recommend MEKP as curing agent. The dosage is 1%~2.5%. The user can adjust the dosage according to the environment temperature. If the process need longer gel time(>60min),Can add TBC as inhibitor. The temperature of work shop should be between 18 °C to 32 °C,RH should be between 40%-90%.The stable working condition is beneficial to stable product.
- B. If no further laminating is planned, a 0.2% solution of 10% paraffin wax solution (MP 54-57 °C) in styrene may be added to the last resin layer to provide a tack free surface.
- C. Thixotropy resin. We suggest gently stirring before use.

Application Guidelines

Room temperature curing product should be through post curing to get the best properties .Before post curing process, the product should be curing in room temperature for 24 hours. Post curing condition: 80~100 °C /3~6hours. For chemical resistance parts, post curing is important.

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.

About AOC

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.

AOC. Trusted Solutions

Brochures

You can find additional information through Product Guide. For detailed information on the system solution, please consult our Marine Brochure. Both brochures are available from our Business Technical Supports Engineer and Account Manager.

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