Technical Datasheet

INEOS Composites

AME™ 6001 INF-135 Premium Marine Resin Infusion

AME 6001 INF-135 Infusion resin is a high performance 100% epoxy vinyl ester resin, that have both excellent processability and superior mechanical properties. AME 6001 INF-135 resin utilizes the proven history of resilience, blister resistance, excellent fatigue life and toughness of AME 6000 resins with new technology that further increases strength and improves surface profile for the boat builder that demands faultless, long lasting performance.

Greater Resistance to Fatigue Failure
Excellent Surface Profiles with Low Shrink
Increased Hydrolysis Resistance
Exceeds ISO 12215-1 Type "A" mechanical requirements
Exceeds DNV Grade "1" mechanical requirements

Typical liquid resin properties

Property	Value	Unit	Method
Viscosity, cone & plate at 25 °C	170	mPas	ISO 2884
Styrene content	39	%	SFS 4864
Density	1,1	kg/dm3	ISO 2811
Geltime, 1,5% Norox MCP-75 at 25 °C	115	min	Hc-04a

Geltime with different peroxides at 20°C

Peroxide	1,25%	1,5%	2,0%
Trigonox 249	240	135	85
Norox MCP-75	185	115	75
Curox CM-75	185	115	75
Akperox CMP75	175	108	70

Note: The geltime of vinyl ester resin may drift faster. Thus it is always recommended to check geltime in workshop conditions before infusion.

Typical cured resin properties

Property	Value	Unit	Method
Postcured for 24h at 60 °C			
Tensile strength	79	MPa	ASTM D-638
Tensile modulus	3450	MPa	ASTM D-638
Elongation at break	5,2	%	ASTM D-638

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Flexural strength	149	MPa	ASTM D-790
Flexural modulus	3620	MPa	ASTM D-790
Heat Deflection Temperature	91	°C	ASTM D-648
Ultimate Heat Deflection temperature*	111	°C	ASTM D-648
* postcured for 2h at 60°C + 3h at 138°C*			

Application and use

AME 6001 INF-135 resin is especially recommended for marine applications using the infusion process. AME 6001 INF-135 is designed as a premium resin for high performance off-shore motor and sailing yachts, that remain in the water for an extended period of time.

Certificates and approvals

AME 6001 INF-135 resin is approved by Lloyd's Register for Special Service Craft.

The manufacturing, quality control and distribution of products, by INEOS Composites, are complying with one or more of the following programs or standards: ISO 9001, ISO 14001 and OHSAS 18001.

Handling and storage

It is highly recommended that all material is stored at stable temperature under 25 °C preferably indoors, and away from sunlight. Prolonged storage outside of recommended conditions can influence liquid resin properties like viscosity and gel time. It is also strongly recommended to mix resin thoroughly before use. Shelf life of AME 6001 INF-135 is five (5) months.

Notice

All information presented herein is believed to be accurate and reliable, and is solely for the user's consideration, investigation and verification. The information is not to be taken as an express or implied representation or warranty for which INEOS Composites assumes legal responsibility. Any warranties, including warranties of merchantability, fitness for use or non-infringement of intellectual property rights of third parties, are herewith expressly excluded.

Since the user's product formulations, specific use applications and conditions of use are beyond the control of INEOS Composites, INEOS Composites makes no warranty or representation regarding the results which may be obtained by the user. It shall be the sole responsibility of the user to determine the suitability of any of the products mentioned for the user's specific application.

INEOS Composites requests that the user reads, understands and complies with the information contained herein and the current Material Safety Data Sheet.

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More Information

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