AME™ 6001 Series Resin

Overview
AME 6001 Series resins are 100% epoxy vinyl ester resins that have both excellent processability and superior mechanical properties. AME 6001 resins have a proven history of resilience, blister resistance, excellent fatigue life and toughness. The AME 6001 resins provide strength and surface profile for the boat builder that demands flawless, long-lasting performance.

The AME 6001 series resins have resulted in significant improvements over the traditional AME 6000 Series resins, including:

- 50% Increase in Tensile Elongation
- Greater Resistance to Fatigue Failure
- Excellent Surface Profiles with Minimal Shrink
- Increased Blister Resistance

Applications
AME 6001 INF Series resins are recommended for use in marine infusion and closed mold applications, for use above or below the water line.

AME 6001 T Series resins are recommended for marine applications that require low HAP content for hand lay-up or spray-up operations. The resin is intended for use above or below the water line.

Both product series exceed:

- ISO 12215-1 Type "A" mechanical requirements
- DNV Grade "1" mechanical requirements

Typical Liquid Resin Properties

Property at 25°C (77°F) unless otherwise marked	AME 6001 T-Series	AME 6001 INF Series	Unit
Brookfield Viscosity, #3 @ 60 rpm	500	145	Cps (mPas)
Thix Index	2.7	-	
Styrene (maximum)	35	35	%

Typical Liquid Resin Curing Properties

Product	RTG Time (minutes)	Gel to Peak Exo (minutes)	Peak Exo Temp (°F)
AME 6001 INF-60 with 1.5 phr MCP-75	60	-	-
AME 6001 T-25	25	12	325
AME 6001 T-35	35	14	320
AME 6001 T-45	45	13	315
AME 6001 T-45 with 1.5 phr Cat 730	55	40	300
Room Temperature Gel time tested @ 77°F/25°C; initiated with 1.5 g MEKP-9 in 100 g resin unless marked			

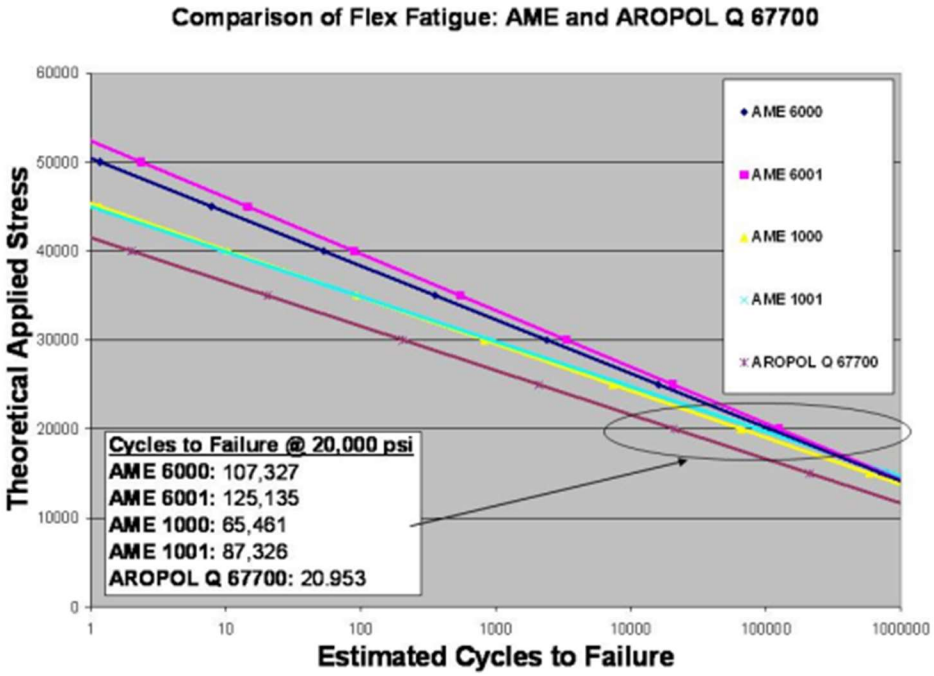
AME™ 6001 Series Resin

Typical Cured Resin Properties

Property at 25°C (77°F) unless otherwise marked	Value	Unit	Test Method
Tensile Strength	11,500	psi	ISO 527
Tensile Modulus	500	ksi	ISO 527
Tensile Elongation at Break	5.2	%	ISO 527
Flexural Strength	21,600	psi	ISO 178
Flexural Modulus	525	ksi	ISO 178
Heat Deflection Temperature	91	°C	ISO 75
Ultimate HDT	111	°C	ISO 75
Clear cast panels post cured for 24 hours at 60°C per Det Norke Veritas. Det Norske Veritas is an international ship classification and material certification provider. *Ultimate HDT post cured 2 hours at 60°C followed by 3 hours at 138°C.*			

Flex Fatigue

Boat Hulls are subjected to repeated, cyclic type stresses in everyday use such as waves, wakes and docking. The flex fatigue test is designed to measure the long-term durability and resistance to fatigue failure of composite materials used in boat hulls. The flex fatigue test itself accelerates fatigue failure by using even more extreme conditions than a boat hull would normally endure. Those materials with a higher number of cycles to failure can be expected to resist fatigue failure for a longer period of time. AME 6001 demonstrates increased fatigue resistance as compared to other vinyl ester and general-purpose resins.



AME™ 6001 Series Resin

End User Testing
Each end-user should evaluate the performance of the resin in conjunction with their respective gelcoat, under conditions which simulate laminate design, production procedure and anticipated field exposure before use. For technical information on the performance of the resin, contact your ALTA Performance Materials Technical Representative.

Standard Package
Steel drum with net weight of 220 kgs (485 lbs).

Commercial Warranty
Three months from date of manufacture, when stored in accordance with the storage conditions stated below.

Storage
All other conditions being equal, higher storage temperatures will reduce product stability and lower storage temperatures will extend product stability. Store at temperatures below 25°C / 77°F. Avoid exposure of storage tanks and storage containers to heat such as direct sunlight, steam pipes, and other heating sources.

Containers: Keep containers sealed to prevent moisture pick-up and monomer loss. Do not store drums and other small containers outdoors. Mild mixing is recommended after prolonged storage. Rotate stock.

Bulk Storage: Consult with your ALTA Performance Materials account representative for a guide to best practices on bulk resin storage and handling.

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 ALTA Performance Materials 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 ALTA Performance Materials, ALTA Performance Materials 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.

AME™ 6001 Series Resin

ALTA Performance Materials requests that the user reads, understands, and complies with the information contained herein and the current Safety Data Sheet.

[i]All properties are typical values. Results may vary. Typical values are not a guaranteed analysis of any specific lot or specification.

ALTA Performance Materials is committed to the continuous evolution of technology and service solutions that promote health, safety and environmental protection around the world. ® Registered trademark and ™ trademark ALTA or its subsidiaries, registered in various countries.
© May 25, ALTA; Published May 29, 2025

Technical Datasheet

INEOS Composites

AME™ 6001 Series Premium Epoxy Vinyl Ester Resin

AME™ 6001 Series Highlights

AME™ 6001 Resins are high performance, 100% epoxy vinyl ester resins that have both excellent processability and superior mechanical properties. AME™ 6001 resins utilize the proven history of resilience, blister resistance, excellent fatigue life and toughness of AME™ 6000 resins with additional technology that increases stability, strength and surface profile for the boat builder that demands flawless, long lasting performance. Technology developments in the AME 6001 have resulted in 50% increase in tensile elongation, over 15% increase in tensile strength, flex strength and resistance to fatigue. The AME™ 6001 resins also have significant increases in blister resistance over an even longer period of time.

50% Increase in Tensile Elongation
Greater Resistance to Fatigue Failure
Faster Wet-out and Roll-out
Excellent Surface Profiles with Minimal Shrink
Increased Blister Resistance
Mact Compliant
Exceeds ISO 12215-1 Type "A" mechanical requirements
Exceeds DNV Grade "1" mechanical requirements

Recommended Product Application

AME 6001 Resins are recommended for marine applications that require low HAP content for hand lay-up or spray-up operations, infusion or closed mold applications. The resin is intended for use above or below the water line.

Typical Liquid Properties

AME 6001 resins come in a wide range of gel times.
The AME 6001 T-40 and AME 6001 INF-35 resins are shown as representative of the series.

Property	AME 6001 T-40	AME 6001 INF-35	Unit	Test Method
Gel Time	40	35	Minutes	HC-04A
Gel to Peak Exotherm	12	15	Minutes	HC-04A
Peak Exotherm	330	325	°F	HC-04A
Brookfield Viscosity (LVT #3 @/60 rpm)	500	145	cps	ISO 2555
Thix Index	2.7			ISO 2555
Styrene max	35		%	

Gel time was tested @77°F/25°C with 1.5 grams MEKP-9 Catalyst in 100 grams of resin.

Technical Datasheet

INEOS Composites

AME™ 6001 Series Premium Epoxy Vinyl Ester Resin

Typical Cured Resin Properties

Property	Value	Unit	Test Method
Tensile Strength	11500	psi	ISO 527
Tensile Modulus	500	ksi	ISO 527
Tensile Elongation	5.2	%	ISO 527
Flexural Strength	21600	psi	ISO 178
Flexural Modulus	525	ksi	ISO 178
Heat Deflection Temperature	91	°C	ISO 75
Ultimate HDT[1]	111	°C	ISO 75

Clear Cast panels post cured 24 hours @60°C per Det Norke Veritas.
Det Norske Veritas is an international ship classification and material certification provider.
[1] Ultimate HDT post cured 2 hrs@60°C + 3 hours @138°C.

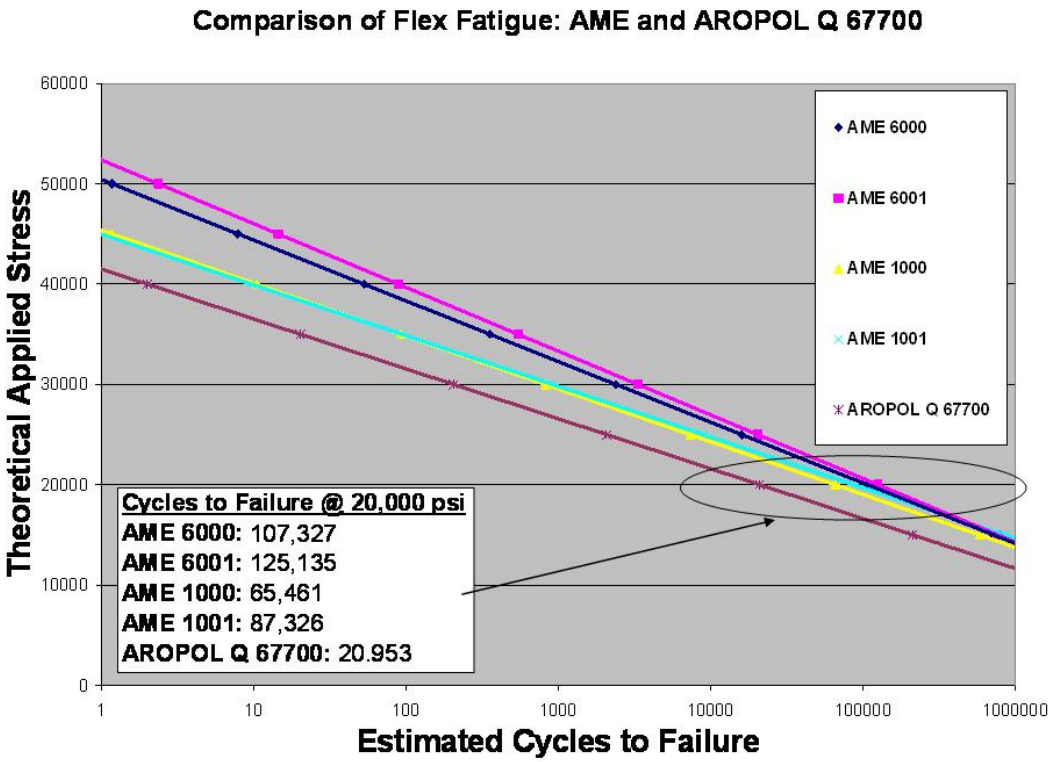
Flex Fatigue

Boat Hulls are subjected to repeated, cyclic type stresses in every day use such as waves, wakes and docking. The flex fatigue test is designed to measure the long term durability and resistance to fatigue failure of composite materials used in boat hulls. The flex fatigue test itself accelerates fatigue failure by using even more extreme conditions than a boat hull would normally endure. Those materials with a higher number of cycles to failure can be expected to resist fatigue failure for a longer period of time. AME 6001 demonstrates increased fatigue resistance as compared to other vinyl ester and general purpose resins.

Technical Datasheet

INEOS Composites

AME™ 6001 Series Premium Epoxy Vinyl Ester Resin



Product Information	Each end-user should evaluate the performance of the resin in conjunction with their respective gelcoat, under conditions which simulate laminate design, production procedure and anticipated field exposure before use. For technical information on the performance of the resin, contact your INEOS Composites Technical Representative.
Standard Package	Steel Drum with Net Weight of 220kgs (485lbs).
Commercial Warranty	Three months from date of manufacture, when stored in accordance with the storage conditions stated below.

Technical Datasheet

INEOS Composites

AME™ 6001 Series Premium Epoxy Vinyl Ester Resin

Storage

Drums: Store at temperatures below 25°C. Storage life decreases with increasing storage temperature. Avoid exposure to heat sources such as direct sunlight or steam pipes. To avoid contamination of product with water, do not store outdoors. Keep sealed to prevent moisture pick-up and monomer loss. Mild mixing is recommended after prolonged storage. Rotate stock.

Bulk: See INEOS Composites's Bulk Storage and Handling Manual for Polyesters and Vinyl Esters. A copy of this may be obtained from your INEOS Composites Account Manager

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.