

# Technical Datasheet

Ashland Performance Materials



## 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 new technology that increases stability, strength and surface profile for the boat builder that demands flawless, long lasting performance. The new technology developments in AME™ 6001 resins have resulted in 50% increase in tensile elongation, over 15% increase in tensile strength, flex strength and resistance to fatigue. The new 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, for use above or below the water line.

### Typical Liquid Properties

Data shown is representative of AME™ 6001 T-40. AME™ 6001 resins come in a wide range of gel times.

Property	Value	Unit	Test Method
Gel Time	40	Minutes	HC-04A
Gel to Peak Exotherm	12	Minutes	HC-04A
Peak Exotherm	330	°F	HC-04A
Brookfield Viscosity (LVT #3 @/60 rpm)	500	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.



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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 <sup>1</sup>	111	°C	ISO 75
	Clear Cast panels post cured 24 hours @60°C per Det Norske Veritas			
	<sup>1</sup> Ultimate HDT post cured 2 hrs@60°C + 3 hrs @138°C			

Det Norske Veritas is an international ship classification and material certification provider.

### 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.



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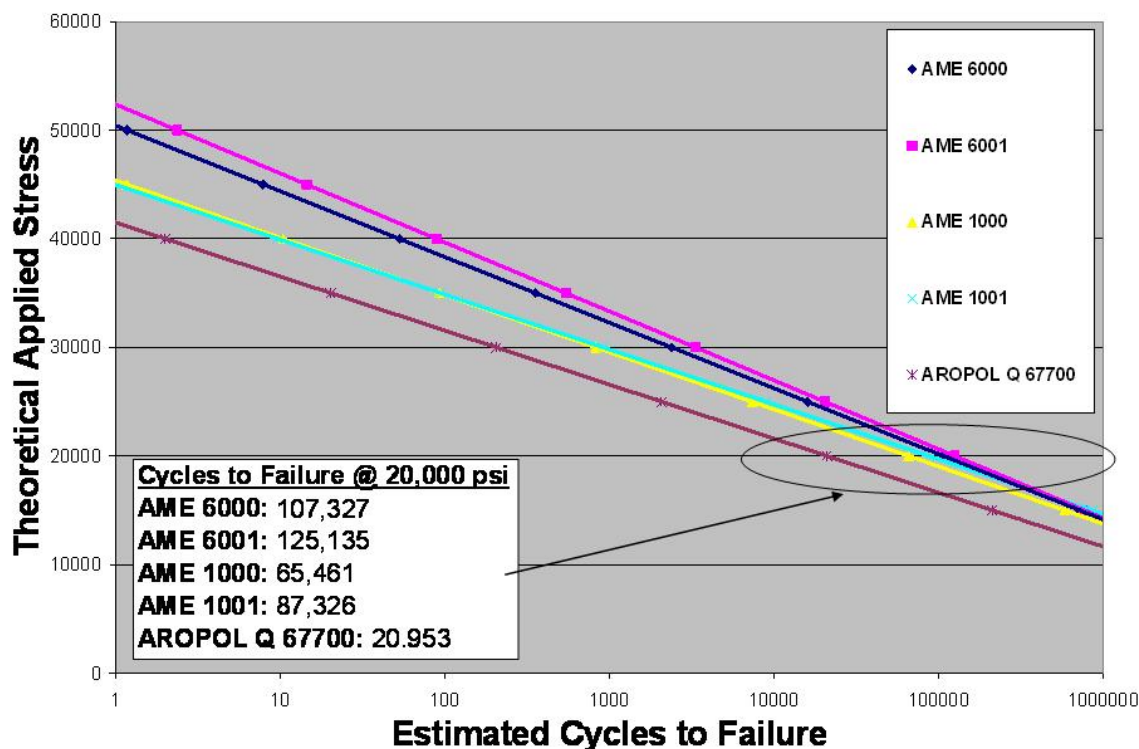
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**Comparison of Flex Fatigue: AME and AROPOL Q 67700**



**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 Ashland Technical Representative.

**Certificates and Approvals**

The manufacturing, quality control and distribution of products, by Ashland Performance Materials, comply with one or more of the following programs or standards: Responsible Care, ISO 9001, ISO 14001, and OHSAS 18001.



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## AME™ 6001 Series Premium Epoxy Vinyl Ester Resin

Standard Package	Steel Drum with Net Weight of 220kgs (485lbs). DOT Label Requirement: Flammable Liquid
Commercial Warranty	Three months from date of manufacture, when stored in accordance with the storage conditions stated below.
Storage	<p>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.</p> <p>Bulk: See Ashland's Bulk Storage and Handling Manual for Polyesters and Vinyl Esters. A copy of this may be obtained from your Performance Materials Account Manager</p>
Notice	<p>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 Ashland assumes legal responsibility. Any warranties, including warranties of merchantability or non-infringement of intellectual property rights of third parties, are herewith expressly excluded.</p> <p>Since the user's product formulations, specific use applications and conditions of use are beyond the control of Ashland, Ashland makes no warranty or representation regarding the results which may be obtained by the user. It shall be the responsibility of the user to determine the suitability of any of the products mentioned for the user's specific application.</p> <p>Ashland requests that the user reads, understands and complies with the information contained herein and the current Material Safety Data Sheet.</p>



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