



Rev. 3.4

ATE-46446™

DEFINITION

6-56962a
6-56964b

ATE-46446™ is a thermally conductive, room temperature curing adhesive for Bonded heat sinks and other applications where a high degree of thermal conductivity is required.

PRODUCT DESCRIPTION

Appearance	Viscous Liquid
Odor	Faint
Color	Grey

Property	Measurement	Methods
Viscosity, mixed	15,000 cp +- 1,000	Brookfield HBT, SSA, Spindle # 27 @ 10 rpm, 25°C

Other information			
Pot life time @ 25± 2°C	45 minutes (50 gram mass)		
Mix Ratio		Weight	Volume
	Part A	100	100
	Part B	9	18
Curing cycle	<ul style="list-style-type: none"> • 1 hour @ 65°C • 20 minutes @ 85° • 24 hours at 25°C • Fixture/handling strength 3 hours at 25°C 		
Storage stability	One year at 25°C		

PROTAVIC AMERICA, INC.

TEL: & FAX: 800.807.2294 / INT'L: 978.372.2016

WWW.PROTAVICAMERIA.COM

APPLICATION PROPERTIES

- Check **ATE-46446™ Part A** for filler settling. If filler settling has occurred, warm to 100°F and mix with spatula or other suitable device such as paint blade or shaker.
- To prepare small quantities of **ATE-46446™** (100 g or less) add Part B to Part A at about 38°C (100°F), mix thoroughly then vacuum degas at 0.5mm Hg or let stand at room temperature for 10-15 minutes before using.
- For larger amounts of **ATE-46446™**, spread the mixed material onto a horizontal plate or surface, no thicker than 1/4 inch, and let stand until most air has escaped, or degas the mixed material at 29 inches Hg in a container 3-4 times larger than the volume mixed.
- Since the cure reaction is exothermic, never mix more than 2,000 g of **ATE-46446™** at one time. Once a large batch is mixed the **ATE-46446™** must be used within 30 minutes after mixing; otherwise, a dangerous exotherm may develop!! Any questions about this, please contact Protavic America, Inc.

TYPICAL PROPERTIES OF THE CURED SYSTEM

The properties set out below were obtained after curing for 24 hours at 25°C. They were determined following measurements carried out in the laboratory over a small number of tests. They are values given by way of guidance, and do not constitute a guarantee. It will be for the user, in all cases, to carry out their own tests to determine whether **ATE-46446™** can be used for the particular application they have in mind.

1 – PHYSICO-CHEMICAL PROPERTIES

Properties	Methods	Units	Typical values
Lap shear to AL	ASTM D 3163	PSI	4.000
Durometer, Shore D	ASTM D2240	--	85
Shrinkage on cure		%	0.0
NASA Outgassing	ASTM 595		0.53% TML 0.09% CVCM 0.20% WVR

PROTAVIC AMERICA, INC.

TEL: & FAX: 800.807.2294 / INT'L: 978.372.2016

WWW.PROTAVICAMERIA.COM

2- THERMAL PROPERTIES

Properties	Methods	Units	Actual values
Thermal Conductivity @ 25°C	Hot Disk (TPS500)	W/m°K	3.009

***NOTE:** *Thermal conductivities on aluminum-bonded heat-sinks are much higher and depend on film thickness and/or geometry.*

PRECAUTIONS IN USE

Please refer to the material safety data sheet.

PACKAGING

Please contact Protavic America, Inc for **ATE-46446™** packaging information

The information contained in this data sheet corresponds to the present state of our knowledge; it is intended for your guidance but we are not bound by it since we are not in a position to exercise control over the manner in which our products are used. Moreover; the attention of the user is drawn to the risks that could possibly occur should a product be used for an application other than that for which it is intended.

PROTAVIC AMERICA, INC.

TEL: & FAX: 800.807.2294 / INT'L: 978.372.2016

WWW.PROTAVICAMERIA.COM