



LOCTITE EA 9396/C-2 AERO

Epoxy Paste Adhesive

(KNOWN AS Hysol EA 9396/ C-2)

INTRODUCTION

LOCTITE EA 9396/C-2 AERO is an elevated curing, low viscosity structural adhesive. LOCTITE EA 9396/C-2 AERO uses a non-aromatic amine curing agent that retains many of the excellent properties offered by aromatic amine curing systems.

FEATURES

- Low Viscosity
- Long Work Life
- Non-MDA Curing Agent
- Ideal for use as Neat Lay-up Resin

Uncured Properties

	<u>Part A</u>	<u>Part B</u>	<u>Mixed</u>
Color	Blue	Purple-Dark Green	Violet-Green
Viscosity @ 77°F	700 Poise	0.4 Poise	
Viscometer, Brookfield	HBT Spdl 4 @ 10 rpm	LVF Spdl @ 30 rpm	
Viscosity @ 25°C	70 Pa·S	0.04 Pa·S	
Viscometer, Brookfield	Spdl 4 @ 1.05 rad/s	LVF Spdl 1 @ 3.17 rad/s	
Density (g/ml)	1.17	1.00	1.15
Shelf life			
@ <40°F/4°C	1 year	1 year	
@ <77°F/25°C	1 year	1 year	

Handling

Mixing - This product requires mixing two components together just prior to application to the parts to be bonded. Complete mixing is necessary. The temperature of the separate components prior to mixing is not critical, but should be close to room temperature (77°F/25°C).

<u>Mix Ratio</u>	<u>Part A</u>	<u>Part B</u>
By Weight	100	36

Note: Volume measurement is not recommended for structural applications unless special precautions are taken to assure proper ratios.

Pot Life (450 gram mass) 7 hours @ 77°F/25°C
Method - ASTM D2471 in water bath.





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Application

Mixing - Combine Part A and Part B in the correct ratio and mix thoroughly. THIS IS IMPORTANT! Heat buildup during or after mixing is normal. Do not mix quantities greater than 450 grams as dangerous heat buildup can occur causing uncontrolled decomposition of the mixed adhesive. TOXIC FUMES CAN OCCUR, RESULTING IN PERSONAL INJURY. Mixing smaller quantities will minimize the heat buildup.

Applying - Bonding surfaces should be clean, dry and properly prepared. For optimum surface preparation consult the LOCTITE Surface Preparation Guide. The bonded parts should be held in contact until the adhesive is set.

Curing - This adhesive should be cured for a minimum of 1 hour @ 200°F/93°C to achieve normal performance.

Cleanup - It is important to remove excess adhesive from the work area and application equipment before it hardens. Denatured alcohol and many common industrial solvents are suitable for removing uncured adhesive. Consult your supplier's information pertaining to the safe and proper use of solvents.

Bond Strength Performance

Tensile Lap Shear Strength

Tensile lap shear strength tested per ASTM D1002 after curing for 1 hour @ 200°F/93°C. Adherends are 2024-T3 Bare aluminum treated with phosphoric acid anodized per ASTM D3933.

<u>Test Temperature °F/°C</u>	Typical Results	
	<u>psi</u>	<u>MPa</u>
77/25	4,600	31.7
180/82	4,100	28.3
250/121	3,200	22.1
350/177	2,500	17.2

Tensile Lap Shear Strength - Thermal Aging Performance

<u>Thermal Aging Hours @ 350°F/177°F</u>	Typical Results	
	Tested at 350°F/177°C	
	<u>psi</u>	<u>MPa</u>
No exposure	2,345	16.2
1000	2,221	15.3
2000	1,992	13.7
5000	1,926	13.3

Service Temperature

Service temperature is defined as that temperature at which this adhesive still retains 1000 psi/6.9 MPa using test method ASTM D1002 and is approximately 400°F/204°C.





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Bulk Resin Properties

Glass Transition Temperature via DMTA (E')

<u>Adhesive Cure</u>	<u>Dry</u>	<u>160°F/71°C & 95%RH</u>	<u>160°F/71°C Water</u>
Cure 1 hour @ 200°F/93°C	226°F/108°C	234°F/112°C	232°F/111°C
Cure 1 hour @ 300°F/149°C	329°F/165°C	235°F/113°C	237°F/114°C
Moisture Equilibrium	-	3-4%	3-4%

Handling Precautions

Do not handle or use until the Material Safety Data Sheet has been read and understood.
For industrial use only.

DISPOSAL INFORMATION

Dispose of spent remover and paint residue per local, state and regional regulations. Refer to HENKEL TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional disposal information.

PRECAUTIONARY INFORMATION

General:

As with most epoxy based systems, use this product with adequate ventilation. Do not get in eyes or on skin. Avoid breathing the vapors. Wash thoroughly with soap and water after handling. Empty containers retain product residue and vapors so obey all precautions when handling empty containers.

PART A

CAUTION! This material may cause eye and skin irritation or allergic dermatitis. It contains epoxy resins.

PART B

WARNING! This material causes eye and skin irritation or allergic dermatitis. It contains amines.

Before using this product refer to container label and HENKEL TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information.



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Note

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