

# LOCTITE EA 960F AERO

## Epoxy Paste Adhesive

(KNOWN AS Hysol EA 960F)

**INTRODUCTION**

LOCTITE EA 960F AERO (fast) is a fairing and smoothing compound for exterior aircraft surfaces. It is a two-component system, which cures rapidly at room temperature. LOCTITE EA960F AERO is color coded to identify when fully mixed.

**FEATURES**

- Two Component System
- Rapid Cure
- Color Change when Mixed
- Good Filler
- Sandable and Paintable
- Smoothing, Fairing Compound

**Uncured Properties**

	<u>Part A</u>	<u>Part B</u>	<u>Mixed</u>
Color	Red	Off White	Red
Viscosity, @ 77°F	6500 Poise	600 Poise	
Brookfield, HBT	Spdl 7 @ 20 rpm	Spdl 6 @ 20 rpm	
Viscosity, @ 25°C	650 Pa·S	60 Pa·S	
Brookfield, HBT	Spdl 7 @ 2.09 rad/sec	Spdl 6 @ 2.09 rad/sec	
Cured Density, g/cm <sup>3</sup>			1.37
Warranty Life			
@ <40°F/4°C	1 year	1 year	
@ <77°F/25°C	1 year	1 year	
@ <90°F/32°C	6 mos	6 mos	

This material will normally be shipped at ambient conditions, which will not alter our standard warranty, provided that the material is placed into its intended storage upon receipt. Premium shipment is available upon request.

**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).

<b>Mix Ratio</b>	<u>Part A</u>	<u>Part B</u>
By Weight	100	50
By Volume	3	2

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



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**Pot Life** (100 gram mass) 30 minutes @ 77°F/25°C  
Method - ASTM D 2471

### Application

**Mixing** - Combine Part A and Part B in the correct ratio and mix thoroughly until entire material turns red. THIS IS IMPORTANT! Heat buildup during or after mixing is normal. Do not mix quantities greater than 250 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. Handling strength for this material will occur in 1 hour @ 77°F/25°C.

**Curing** - LOCTITE EA960F AERO may be cured for 24 hours @ >77°F/25°C to achieve normal performance. Accelerated cures up to 205°F/96°C (for small masses only) may be used as an alternative. For example, 1 hour @ 160°F/71°C will give complete cure. After 5 hours @ 77°F/25°C, the compound may be sanded or painted. Alternate cures to achieve 500 psi/3.4 MPa on aluminum are listed below:

Cure Time	Test Temperature, °F/°C
60 minutes	77/25
15 minutes	120/49
4 minutes	140/60
1 minute	205/96

**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 24 hours @ 77°F/25°C. Adherends are 2024-T3 bare aluminum FPL etched per ASTM D2651-90.

<u>Test Temperature, °F/°C</u>	<u>Typical Results</u>	
	<u>psi</u>	<u>MPa</u>
77/25	2200	15.2





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## 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 160°F/71°C.

## 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

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

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Technical Process Bulletin

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