



Hysol[®] EA 960F

Epoxy Paste Adhesive

Henkel Corporation
Aerospace Group
2850 Willow Pass Road
P.O. Box 312
Bay Point, CA 94565 USA
925.458.8000
Fax: 925.458.8030
www.aerospace.henkel.com

Description

Hysol EA 960F (fast) is a fairing and smoothing compound for exterior aircraft surfaces. It is a two-component system, which cures rapidly at room temperature. Hysol EA960F 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 Adhesive Properties

	<u>Part A</u>	<u>Part B</u>	<u>Mixed</u>
Color	Brown	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	
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).

Mix Ratio	<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.

Pot Life (100 gm mass) 30 minutes
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 Hysol Surface Preparation Guide. Handling strength for this material will occur in 1 hour @ 77°F/25°C.

Curing - Hysol EA960F 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:

60 mins @ 77°F/25°C
15 mins @ 120°F/49°C
4 mins @ 140°F/60°C
1 min @ 205°F/96°C

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

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.

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

WARNING! As with most epoxy based systems this product may cause eye and skin irritation or allergic dermatitis. Contains epoxy resins.

PART B

WARNING! May cause skin and eye burns. Contains diethylenetriamine. Vapors may be irritating to the respiratory tract.

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Users should review the Materials Safety Data Sheet (MSDS) and product label for the material to determine possible health hazards, appropriate engineering controls and precautions to be observed in using the material. Copies of the MSDS and label are available upon request.



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