



LOCTITE[®] EA 9365FST AERO

February 2023

PRODUCT DESCRIPTION

LOCTITE[®] EA 9365FST AERO provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	White
Appearance (Hardener)	White
Appearance (Mixed)	White paste
Components	Two components - requires mixing
Mix Ratio, by weight - Resin : Hardener	100 : 41
Cure	Room Temperature or Heat Cure
Application	Adhesive for Aerospace interior applications
Service Temperature	-55 to 85°C (-67 to 185°F)
Specific Benefits	<ul style="list-style-type: none"> • Halogen- and Antimony-free FST adhesive • Two components system curable at RT

LOCTITE[®] EA 9365FST AERO is a two-component FST retardant toughened paste adhesive specifically designed for interior applications when flame retardancy is required.

Additionally, LOCTITE[®] EA 9365FST AERO provides high color stability after cure.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Density, DIN EN ISO 2811-1, g/ml	1.31
Viscosity, ISO 3219, 25°C (77°F):	
Pa.s	40 to 80
Poise	400 to 800

Part B Properties

Density, DIN EN ISO 2811-1, g/ml	1.11
Viscosity, ISO 3219, 25°C (77°F):	
Pa.s	<15
Poise	<150

Mixed Properties

Pot life 100 gram mass, @ 25°C (77°F), minutes	>120
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TYPICAL CURING PERFORMANCE

Recommended Curing Conditions

- 7 days @ 25°C (77°F)
- 2 hours @ 70°C (158°F)

This adhesive should be cured to the above minimum recommended cure condition to achieve normal performance.

The above cure profile(s) are guideline recommendation(s). These conditions (time and temperature) may vary based on customers' experience and specific application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Glass Transition Temperature, DMA, DIN EN 6032, Tan δ, °C (°F):

Cured 2 hours @ 70°C (158°F):	
Dry	62°C (144°F)
Wet (70°C (158°F), Distilled water)	82°C (180°F)

Density, Henkel Standard Method, g/ml:

Cured 2 hours @ 70°C (158°F)	1.28
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Shore Hardness Durometer D, ASTM D2240:

Cured 2 hours @ 70°C (158°F)	79
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TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength:

Tensile Lap Shear Strength, EN 2243-1, 2024-T3 Clad aluminum treated with phosphoric acid anodized per Henkel Standard Method:

Cured 7days @ 25°C (77°F):		
@ -55°C (-67°F)	MPa	23.3
	(psi)	(3,400)
@ 25°C (77°F)	MPa	24.8
	(psi)	(3,600)
@ 85°C (185°F)	MPa	4.6
	(psi)	(670)

After 1,000hours @ 70°C and 85% RH:

@ 25°C (77°F)	MPa	24.9
	(psi)	(3,600)



Cured 2hours @ 70°C (158°F):

@ -55°C (-67°F)	MPa	24.7
	(psi)	(3,600)
@ 25°C (77°F)	MPa	26.3
	(psi)	(3,800)
@ 85°C (185°F)	MPa	5.8
	(psi)	(840)

After 1,000 hours @ 70°C and 85% RH:

@ 25°C (77°F)	MPa	25.5
	(psi)	(3,700)

Peel Strength:

Floating Roller Peel Strength, EN 2243-2, 2024-T3 Clad aluminum treated with phosphoric acid anodized per Henkel Standard Method:

Cured 7days @ 25°C (77°F):

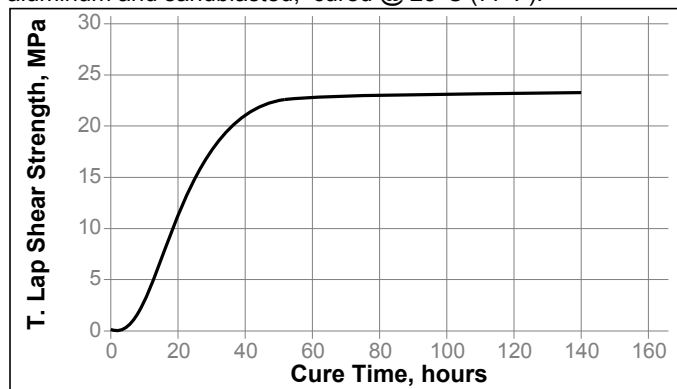
@ -55°C (-67°F)	N/mm	1.6
	(ppi)	(9)
@ 25°C (77°F)	N/mm	2.5
	(ppi)	(14)
@ 85°C (185°F)	N/mm	2.8
	(ppi)	(16)

Cured 2hours @ 70°C (158°F):

@ -55°C (-67°F)	N/mm	2.7
	(ppi)	(15)
@ 25°C (77°F)	N/mm	3.2
	(ppi)	(18)
@ 85°C (185°F)	N/mm	3.3
	(ppi)	(19)

Strength build-up curve:

Tensile Lap Shear Strength, EN 2243-1, 2024-T3 Clad aluminum and sandblasted, cured @ 25°C (77°F):

**FST Properties**

FST Properties	Test Method	Requirement	Results
Vertical burn 12s, stand alone 3.3mm	FAR25.853 App F part 1 (a)(ii)	--	--
Burn Length, After Flame time	--	203mm, 15s max	<40mm, <1s
Smoke Density flaming mode, 0.55mm adhesive + 30mm Alu	FAR25.853 App F Part V (b)	200 Ds	150 Ds
Smoke toxicity compliance, 0.55mm adhesive + 30mm Alu	ABD0031, AITM 3.0005 Issue 2	Compliant/Not Compliant	Compliant

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet (SDS).

PRECAUTIONARY INFORMATION

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.

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

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.

DIRECTION FOR USE:**Mixing:**

- Mixing the adhesive just prior to use is recommended. The temperature of the separate components prior to mixing is not critical, but should be close to room temperature: 25°C (77°F).
- Combine 100 parts resin to 41 parts hardener by weight and mix thoroughly.
- Note:** Volume measurement is not recommended for structural applications unless special precautions are taken to assure proper ratios.
- 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.

Application:

1. Bonding surfaces should be clean, dry and properly prepared.
2. The bonded parts should be held in contact until the adhesive is set.

Clean-up:

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

Disposal:

1. 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.

STORAGE

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 2 to 21°C. Storage greater than 28°C (82°F) can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously recommended. If additional information is required, please contact your local Henkel representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Disclaimer

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Reference 1.2