

LOCTITE EF 562 AERO

Foaming Core Splice Adhesive

(KNOWN AS Hysol MA 562)

INTRODUCTION

LOCTITE EF 562 AERO is a general purpose 250°F (121°C) or 350°F (177°C) curing foaming adhesive. LOCTITE EF 562 AERO is designed for service temperatures from -67°F (-55°C) to 350°F (177°C).

FEATURES

- Cured adhesive exhibits uniform cell structure upon cure; limits moisture ingress into splice area
- Qualified to many industry specifications
- Asbestos Free
- Dual cure capabilities at 250°F (121°C) or 350°F (177°C)
- Excellent slump resistance
- Low exothermic properties - ideal for thick splices or co-cure conditions

USES

- Sealing, splicing or reinforcing honeycomb core edge closeouts

Typical Technical Data	LOCTITE EF 562 100M AERO
Type:	Unsupported expandable epoxy film adhesive between liners of paper
Color:	Yellow
Volatiles:	<1%
Thickness:	0.050" & 0.100" (1.3 mm and 2.5mm)
Form:	1' x 2' sheets (~.3 x .6m)
Slump:	Less than 0.125" (3.18mm)
Expansion:	2 to 3.5 times original uncured thickness
Exotherm:	<550°F (280°C) based on .200" (5.1mm) thick material
Cured Density:	25 to 35 lbs/cu. ft. (0.40-0.56 g/cc)
Shelf Life:	6 months @ 0°F (-18°C) or below
Out Time:	10 days @ 90°F (32°C) or 20 days @ 75°F (24°C)

Application Method

Remove adhesive material from cold storage. Allow stabilization at room temperature. Keep the material wrapped to prevent moisture from condensing on the adhesive. Be sure parts to be bonded have been thoroughly cleaned and dried before bonding.

Cut adhesive to part size, remove the paper separator and apply to edge of honeycomb core. Remove the other paper and join to the other section of core or edge member. Assemble panel using desired adhesive. Panel is now ready for a cure in a press, vacuum bag in an oven, or an autoclave. Co-cure with panel adhesive.

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Curing Conditions: 60 minutes at 250°F (121°C) or 350°F (177°C) with a heat up rate of 5-10°F (3-6°C) per minute.

Clean-up

Uncured adhesive may be removed effectively with ketone solvents in well ventilated areas. Avoid contaminating uncured parts. Consult solvent container label/MSDS for proper safety and handling procedures.

Storage

The shelf life of LOCTITE[®] EF 562 AERO is 6 months at 0°F (-18°C). This product has an out time of 10 days @ 90°F (32°C).

Performance Properties

Tube Shear Test Conditions ¹		Cured 60 Minutes @		Cured 60 Minutes @	
		250°F	121°C	350°F	177°C
Adhesive Thickness→		.050"	1.33mm	.050"	1.3mm
°F	°C	psi	MPa	psi	MPa
-67	-55	990	6.9	800	6.6
75	24	1200	8.3	1150	8.0
180	82	1240	8.6	1170	8.1
250	121	1150	8.0	1050	7.3
350	177	350	2.4	350	2.4

77°F (25°C) Tube Shear after Environmental Conditioning	Cured 60 Minutes @	
	250°F	121°C
	psi	MPa
15 minutes trichlorethane degreasing and 30 minutes @ 250°F (121°F)	1080	7.5
7 days Skydrol @ 155°F (68°C)	1085	7.5
3 day water boil	1095	7.5
30 day salt spray	780	5.4

1. Tube shear specimens were fabricated from P2 etched 5052 aluminum. Tube dimensions were 9" x 1" x 0.49" (228.6mm x 25.4mm x 1.24mm) and 9" x 0.5" x 0.49" (228.6mm x 12.7mm x 1.24mm). Tubes were loaded with 44.5 grams of LOCTITE EF 562 100M AERO.



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Performance Properties (Continued)

Flexural Strength (ASTM C393) after 10 Minutes	77-250°F (25-121°C) for 1 Hour		77-350°F (25-177°C) for 1 Hour	
	psi	MPa	psi	MPa
@ -67°F (-55°C)	730	6.07	740	5.14
@ 75°F (24°C)	830	6.76	770	5.35
@ 180°F (82°C)	750	6.21	760	5.28
@ 250°F (121°C)	650	4.51	660	4.58
@ 250°F (121°C)	710	4.93	-	-
@ 300°F (149°C)	-		640	4.45
@ 350°F (177°C)			540	3.75
@ 350°F (177°C)			380	2.64
@ 350°F (177°C)			140	0.97
@ 425°F (208°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.

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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