



## Hysol® MA 562SFR

### Foaming Core Splice Adhesive

Henkel Corporation  
Aerospace  
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® MA 562SFR is an expanding foam adhesive, which is supplied as a film for core splicing and closeout of honeycomb panels. Hysol® MA 562SFR offers the advantages of a fire retardant structural adhesive, which may be cured at 250°F (121°C) or 350°F (177°C).

#### Features

- Fire retardant
- Non-Asbestos
- Dual Cure: 250°F (121°C) or 350°F (177°C)

#### Uses

- Sealing, splicing or reinforcing honeycomb materials.

Typical Technical Data	Hysol® MA 562SFR
Type:	Unsupported Expanding Epoxy Film Adhesive
Thickness:	.050" (.127 cm); other thicknesses available
Form:	1' x 2' sheets, rolls
Weight:	0.25 - 0.35 lbs/SF (.050"/.127cm thickness)
Adhesive Tack:	Moderate
Color:	Yellow
Material Sag:	Less than 0.1"/.254cm
Volatiles:	<1%
Expansion:	200-300% (ASTM E 990: EXP % = A/B x 100)
Cured Density:	25-35 lbs/cu. ft. (.40-.56g/cc)
Shelf Life:	6 months @ 0°F (-18°C)
Out Time:	10 days @ 77°F (25°C)

#### Performance Properties

Tube shear data is based on 0.050"/.127cm thick material cured at 250°F (121°C) for one hour or room temperature to 350°F (176.6°C) for one hour with a 5°F (-15°C) per minute temperature rise. Tube shear specimens were fabricated from FPL etched 5052 aluminum. Tube dimensions are as follows: Outer tube - 9" x 1.0" x 0.049"/22.86cm x 2.54cm x .12446cm wall, Inner tube - 9" x 0.5" x 0.49"/ 22.86cm x 1.27cm x .12446cm. Assembled tubes are loaded with 44.5 " 0.5 grams.

Tube Shear	Cured	
	77-225°F (25-107°C)/1 hr	77-350°F (25-177°C)/1 hr
@ 77°F (25°C)	80-90 psi (5.5-6.2MPa)	850 psi (5.86 MPa)
10 min. @ 250°F (121°C)	1050 psi (7.24 MPa)	---
10 min. @ 350°F (177°C)	---	150 psi (1 MPa)
10 day Water Boil @ 180°F (82°C)	---	700 psi (4.8 MPa)

**Flexural Core Shear**

Face sheets consist of FPL etched 2024 aluminum, 0.063"/.16002cm thick. Aluminum core is 0.5"/1.27cm thick, 0.125"/.3175cm cell, and 0.002"/.00508cm foil. Core shear strength is determined using a 3" x 8"/7.62cm x 20.32cm flexure specimen. The splice is located 2"/5.08cm from one end of the flexure specimen.

Flexural Strength

at 77°F (25°C) 20 psi (5.7 MPa)  
 after 10 minutes @ 350°F (177°C) 530 psi (3.7 MPa)

**Application Method**

Remove adhesive material from cold storage at least 12 hours prior to use to allow stabilization at room temperature. Keep the material wrapped to prevent moisture from condensing on the adhesive. If details are cut and replaced in cold storage, shorter stabilization times may be used.

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 cure in a press, vacuum bag in an oven, or an autoclave. Follow recommended cure cycles.

**Curing Conditions**

60 minutes @ 250°F (121°C)  
 or  
 60 minutes @ 350°F (177°C), each with a 2-8°F (1-4°C) per minute heat up rate.

**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 Hysol® MA 562SFR is 6 months at 0°F (-18°C).  
 This product has an out time of 10 days @ 77°F (25°C).

### Handling Precautions

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

#### 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.

**CAUTION!** As with most epoxy based systems, the uncured adhesive may cause eye and skin irritation or allergic dermatitis. Contains epoxy resins.

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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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