



Hysol[®] MA 562

Foaming Core Splice Adhesive

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Description

Hysol[®] MA 562 is a general purpose 250°F (121°C) or 350°F (177°C) curing foaming adhesive. Hysol[®] MA 562 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	Hysol [®] MA 562
Type:	Unsupported expandable epoxy film adhesive between liners of paper
Color:	Yellow
Volatiles:	<1%
Thickness:	.050" & .100" (1.3 mm and 2.5mm), other thicknesses available upon request
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. (.40-.56 g/cc)
Shelf Life:	6 months @ 0°F (-18°C) or below OR 3 months @ 40°F (4°C)
Out Time:	10 days @ 90°F (32°C) or 20 days @ 75°F (24°C)

Performance Properties

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
Tube Shear		PSI	MPa	PSI	MPa
°F	°C				
-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

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 Hysol® MA 562.

Performance Properties - continued

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

Flexural Strength (ASTM C 393) 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
@ 425°F (208 °C)			140	0.97

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.

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 Hysol® MA 562 is 6 months at 0°F(-18°C).
This product has an out time of 10 days @ 90°F (32°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.

