



TECHNICAL DATA SHEET

TDS# 2308

DATE: JULY 2013

BACON INDUSTRIES

FLUID ADHESIVE FA-8

ADHESIVE: FA-8 is an unfilled gyro grade epoxy adhesive having good dimensional stability. It is useful in applications for bonding and sealing beryllium and other metals. The activator is colored making it easy to tell when the adhesive is properly mixed.

RECOMMENDED MIXING AND HANDLING PARAMETERS

Amount of Activator per BA-5, parts by weight per hundred of Adhesive FA-8 (1)	13.5
Viscosity of mixed adhesive at room temperature, poise	60
Surface Tension, dyne/cm	52
Working Life at room temperature, minutes	90
Pot Life (tack-free time) at room temperature, minutes	240
Recommended Cure, hr/°F	2/200

TYPICAL PROPERTIES OF CURED ADHESIVE:

	CURE		
	2 hr at 200°F	8 hr at 200°F	1 hr at 140°F + 16 hr at 160°F
Color (1)	Blue-Green	Blue-Green	Blue-Green
Specific Gravity	1.20	1.19	1.19
Hardness, Shore D	83	85	85
Lap Shear Strength to aluminum, psi			
at -65°F	2250	---	---
at 77°F	2650	2300	2500
at 200°F	1275	---	---
at 77°F after ageing one year at 300°F	2250	---	---
Flexural Strength, psi	18,000	15,000	18,000
Young's Modulus in Flexure, psi	760,000	690,000	720,000
Glass Transition Temperature, °F			
by DSC	165	205	193
by TMA (2)	130	208	212
Loss in Weight after ageing six months at 300°F, %	8.8	---	---
Coefficient of Linear Thermal Expansion (2), 10 ⁶ /°F			
between -65°F and 77°F	29	29	30
between 77°F and 160°F	60	35	39
between 77°F and 200°F	74	39	41
Dielectric Constant at 77°F and 1 kHz	3.8	3.73	---
Dissipation Factor at 77°F and 1 kHz	0.005	0.008	---
Volume Resistivity, 10 ¹⁶ ohm-cm	>1	>1	---

(over)

	CURE		
	<u>2 hr at 200°F</u>	<u>8 hr at 200°F</u>	<u>1 hr at 140°F + 16 hr at 160°F</u>
Weight Change in water, 24hr at 77°F, %	0.12	0.20	0.20
Weight Change in Solvent, %			
24hr immersion plus 24 hr dry at 135°F			
Methanol	0.54/0.21	0.25/0.05	0.50/0.13
Toluene	0.02/0.00	0.04/0.03	0.02/-0.02
Methylene Chloride	Dissolved	4.57/0.23	Dissolved
2-Butanone	0.22/0.06	0.03/0.02	0.13/0.00
CFC-113	0.01/0.00	0.02/0.02	0.00/-0.02
n-Hexane	0.00/0.00	0.02/0.02	0.01/-0.03

NOTES:

1. Activator BA-9 (BA-5 without color and thickeners) may be used at a ratio of 12.5 parts by weight of BA-9 to each 100 parts by weight of Adhesive FA-8. Cured properties are the same but the color is clear light amber.
2. Measured by Thermal Dilatometry using duPont model 943 TMA with Model 1090 Data Analysis Station.

INSTRUCTIONS FOR USE:

Stir the contents of the Adhesive FA-8 container before removing material. If the contents are cloudy, hard or lumpy, warm to 200°F and mix thoroughly. Prolonged storage may result in crystallization of the resin. Warming to 200°F will melt the resin and restore the adhesive to its original consistency. Weigh the ingredients accurately so that each amount specified does not vary more than 5%.

At Room Temperature, weigh 100 parts by weight of Adhesive FA-8 into one container and 13.5 parts by weight of Activator BA-5 into a second container. Add an equal volume of Adhesive FA-8 to the Activator BA-5 and mix well until the color is uniform. Then, add the remainder of the Adhesive FA-8 and mix well until the color is uniform. Cure as recommended.

FOR INDUSTRIAL USE ONLY! WARNING!!

May cause injury to skin following prolonged or repeated contact. Use with adequate ventilation. Refer to Material Safety Data Sheet of detailed health and safety information.

SHELF LIFE:

Adhesive FA-8 and Activator BA-5 have a shelf life in excess of two years when stored in unopened containers at an average temperature below

AVAILABILITY:

Adhesive FA-8 is available in quart kits (see Data Sheet No. 2201), and premixed, degassed and frozen (see Data Sheet No. 2031 and 2032).