

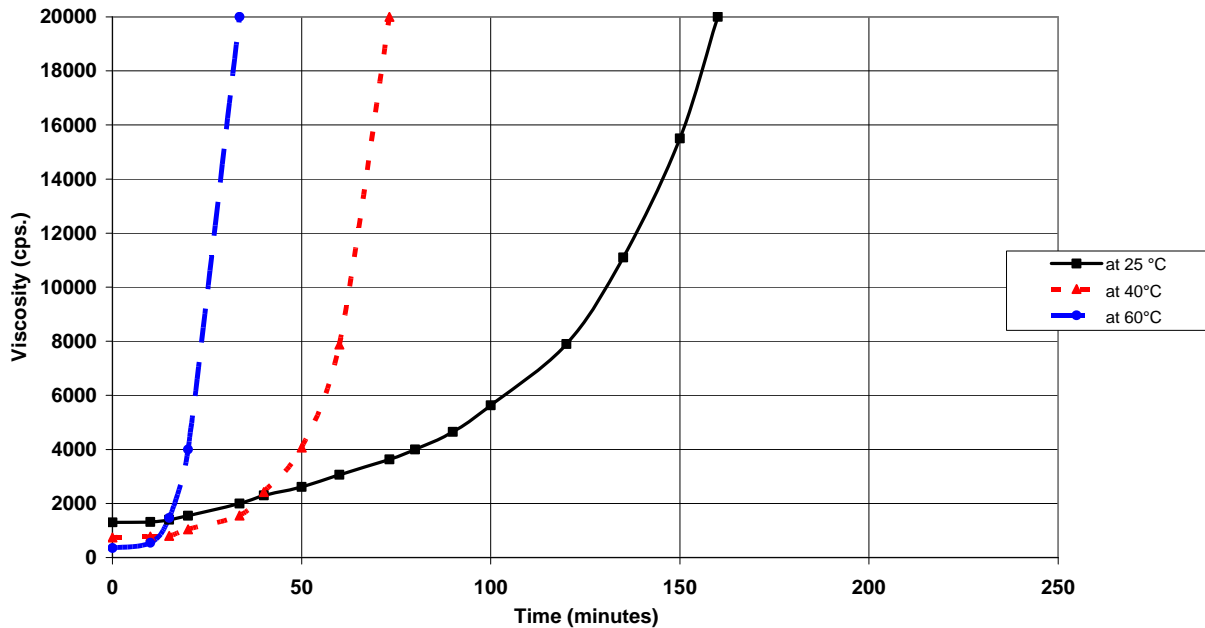
Advanced Materials**Araldite[®] CW 5801-1 US / Aradur[®] HY 5801 US****Two-Component, Epoxy-Based Potting and Encapsulating System**

General	Araldite [®] CW 5801-1/Aradur [®] HY 5801 is a 100% solids (no solvent) two-component, epoxy-based potting and encapsulating system designed especially for applications requiring very low shrinkage and excellent dielectric characteristics. Although the system will gel at room ambient temperature, an additional short elevated temperature post-cure is recommended in order to achieve optimal properties. This product is recommended for encapsulation of electrical and electronic components.	
Key Properties	Low viscosity for good penetration Bonds well to most substrates Adequate working life at room temperature Rapid cure at moderately elevated temperatures Moderate glass transition temperature Very low shrinkage upon cure Excellent dielectric properties	
Typical Properties*	Araldite[®] CW 5801-1	
	Appearance	Blue paste
	Specific Gravity	0.77 – 0.83
	Viscosity @ 25°C, cPs	9,000 – 15,000
	Flash point, Closed Cup, °F (°C)	>392 (>200)
	Aradur[®] HY 5801	
	Appearance	Clear light amber liquid
	Specific Gravity	0.91 – 0.96
	Viscosity @ 25°C, cPs	12 – 25
	Flash point, Closed Cup, °F (°C)	>392 (>200)
	Mixed	
	Specific Gravity	0.79 – 0.84
	Viscosity, cPs.	
	@ 25°C	1,100 – 1,300
	@ 40°C	700 – 750
	@ 60°C	350 - 400

* Typical properties are based on Huntsman's test methods. Copies are available upon request.

Figure 1

Viscosity v. Time



STORAGE STATEMENT

Araldite® CW 5801-1/Aradur® HY 5801 components should be stored in a dry place and in the sealed original containers at temperatures between 2°C and 40°C (36°F and 104°F). Under these storage conditions the shelf life for each product is 1 year. The products should not be exposed to direct sunlight. Some filler separation may occur in the Araldite® CW 5801-1 component during storage. Prior to use it should be re-homogenized by gentle stirring to prevent air entrapment.

Mix ratios

	Parts by weight
Araldite® CW 5801-1	100
Aradur® HY 5801	19.6

Processing data

(typical values)

Gel time	
@ 25°C (120 grams), minutes	170 - 220
@ 40°C (10 grams), minutes	100 - 150
@ 60°C (10 grams), minutes	30 - 35

Recommended cure time: 12 hours @ 23°C + 3 hours @ 95°C

Physical Properties

(typical values)

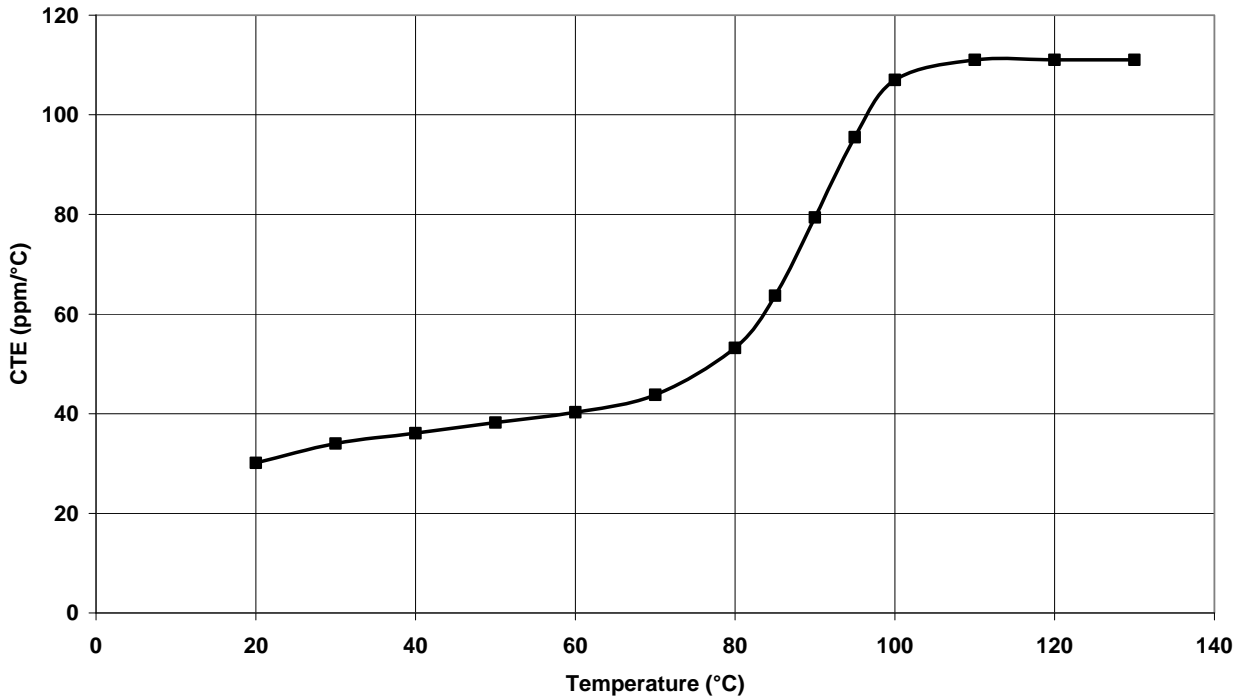
Cure: 12 hr/23°C + 3 hr/95°C

Flexural strength, psi	9,000 – 12,000
Flexural modulus, psi	520,000 – 540,000
Hardness, Shore D	78 - 84
Glass transition temperature, °C	90 - 95
Coeff. thermal expansion, in/in-°C	see Figure 2
Linear Shrinkage, %	Less than 0.005 inches/inch

Figure 2

Cure: 12 hours @ 23°C + 3 hours @ 95°C

Coefficient Linear Thermal Expansion v. Temperature



**Electrical Properties
(typical values)**

Cure: 12 hr/23°C + 3 hr/95°C

Dielectric strength, kV/mm
@ 2 mm. thickness 27.9

Dielectric constant see Figure 3
Dissipation factor see Figure 4
Volume resistivity see Figure 5
Surface resistivity see Figure 6

Figure 3

Dielectric Constant vs. Temperature

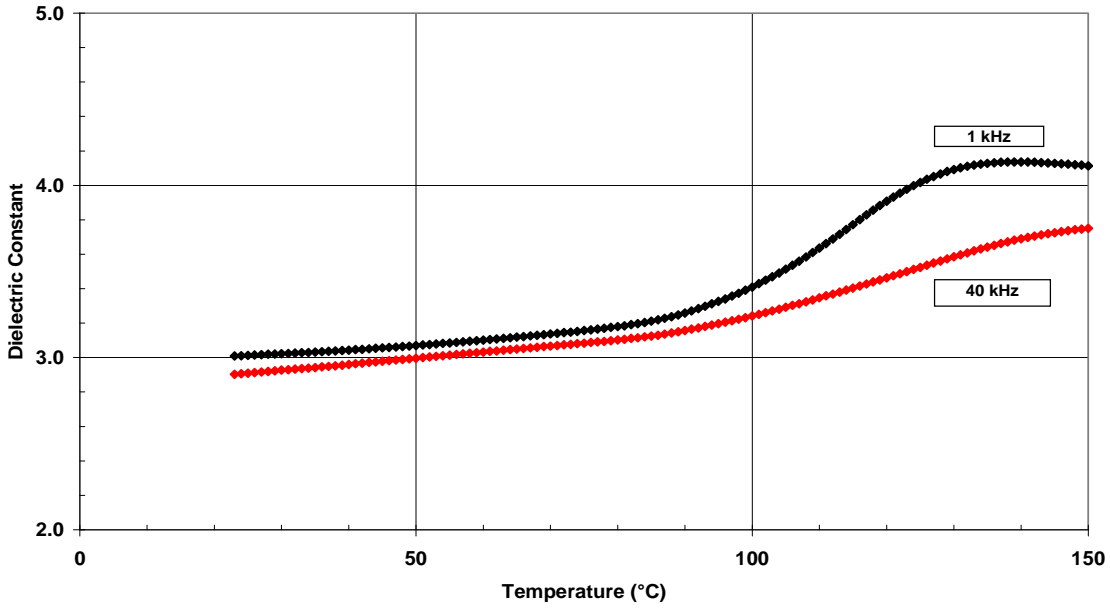


Figure 4

Dissipation Factor v. Temperature

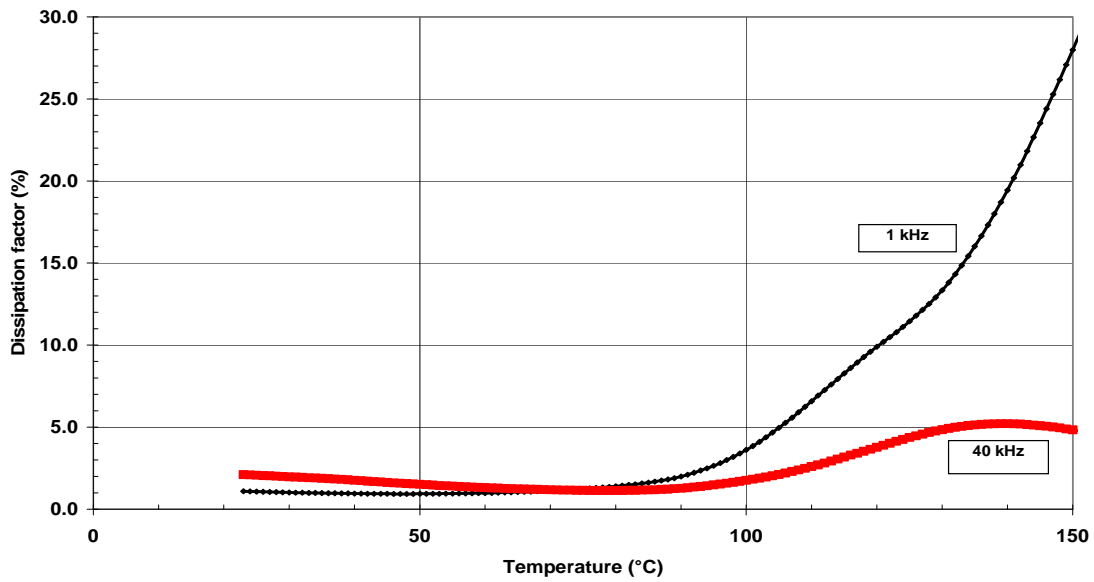


Figure 5

Volume Resistivity vs. Temperature

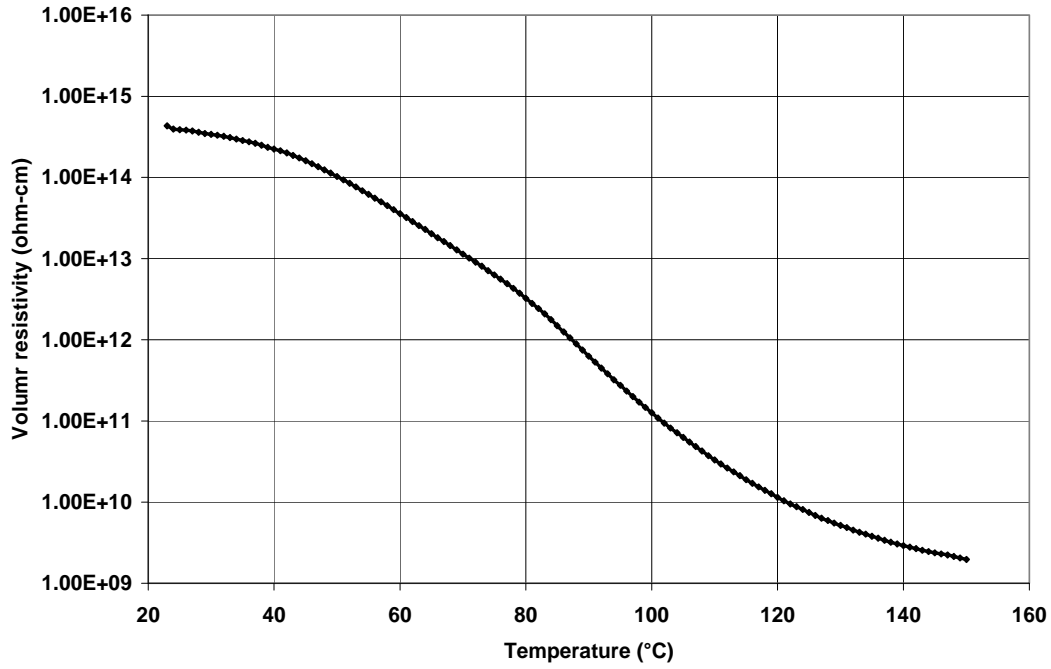
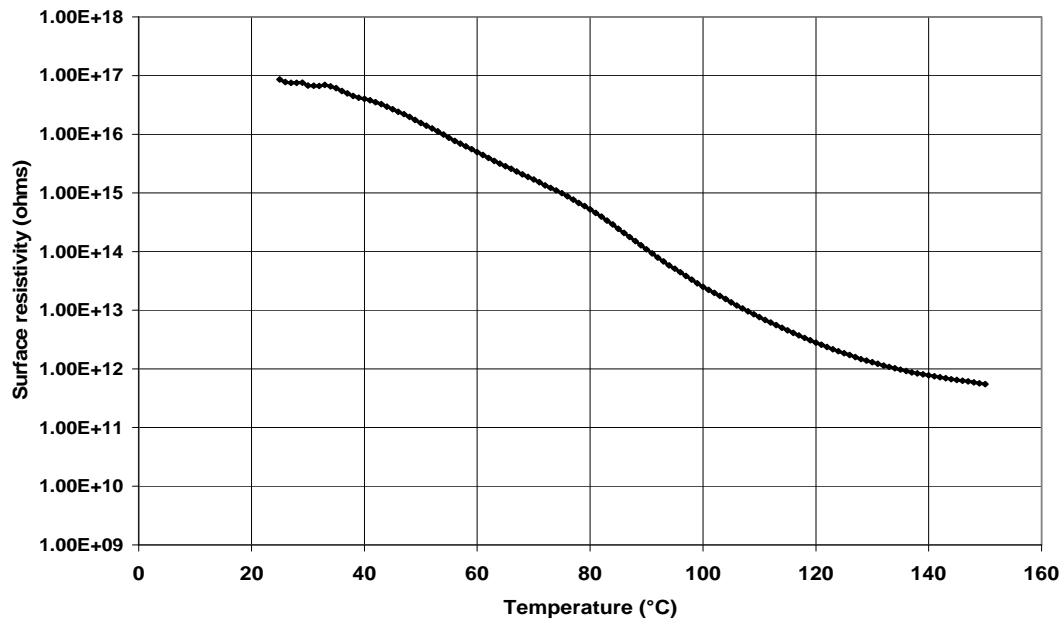


Figure 6

Surface Resistivity v. Temperature



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First Aid!

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