

FURANE PRODUCTS COMPANY

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a subsidiary of
ROHM AND HAAS ADVANCED MATERIALS COMPANY

EPOCAST* 220A/951

Epoxy Casting System
Room Temperature Cure

EP-84-4

DESCRIPTION:

TECHNICAL DATA SHEET

EPOCAST* 220A/951 is a tan, filled, high viscosity, semi-rigid, room temperature cure epoxy system exhibiting excellent electrical properties. EPOCAST* 220A/951, with its short pot life, demonstrates excellent versatility as a limited mass casting compound.

TYPICAL PROPERTIES:

	<u>Part A</u>	<u>Part B</u>	<u>Test Method</u>
Viscosity ⁽¹⁾ @ 25°C (77°F) cps.	105,000	75	ASTM-D-2398
Specific gravity @ 25°C (77°F)	1.45	0.97	ASTM-D-1475
Color	Tan	Clear	Visual
Shelf life ⁽²⁾ @ 25°C (77°F) (min. from date of mfr.)	12 mos.	12 mos.	

(1) Brookfield Viscometer Model RVT

(2) Once containers have been opened, shelf life may be reduced, especially if material is exposed to moisture. For maximum shelf life, we recommend the addition of a nitrogen gas blanket before resealing.

PRODUCT HANDLING:

Mix ratio, parts by weight: 100/7

Pot life, 100 grams @ 25°C (77°F): 30-50 minutes.

Mixed viscosity @ 25°C (77°F), cps: 30,000

Filled resins may tend to settle during storage. Thorough mixing is required before each use.

If crystals form in either resin or curing agent, redissolve by heating to 60°C (140°F) for 4-16 hours, depending upon container size.

Vacuum de-airing techniques are suggested to provide optimum insulation characteristics.

CURE SCHEDULE:

24 hours @ 77 ± 2°F, or 2 hours @ 150°F.

*Registered U.S. Patent Office

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IMPORTANT NOTICE REGARDING THIS INFORMATION

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

Suggestions for uses of our products or the inclusion of descriptive material from patents and the citation of specific patents in this publication should not be understood as recommending the use of our products in violation of any patent or as permission or license to use any patents of Furane Products Company.

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TYPICAL
CURED
PROPERTIES:

	<u>Physical</u>	<u>Result</u>	<u>Test Method</u>
	Color	Tan	Visual
	Specific gravity	1.47	ASTM-D-792
	Hardness, durometer D scale	90/89	ASTM-D-2240
	Flexural strength, psi	10,000	ASTM-D-790
	Compressive strength, psi	16,000	ASTM-D-695
	Tensile strength, psi	7,500	ASTM-D-638
	Elongation, %	1.0	ASTM-D-638
	Linear shrinkage, %	0.14	ASTM-D-2566
	Thermal conductivity, 10 ⁻⁴ cal/cm·sec·°C	8.0	Colora Conductomete
	Coefficient of thermal expansion, 10 ⁻⁵ in/in/°C (25°C-90°C)	2.4	Perkin- Elmer TM1
	Flame resistance, in/min	0.9	UL-94 HB
	Moisture absorption, %	0.08	ASTM-D-570
	<u>Electrical</u>		
	Dielectric strength, short time, 1/8" thick, volts/mil	420	ASTM-D-149
	Arc resistance, seconds	126	ASTM-D-495
	Dielectric constant @ 25°C (77°F)		ASTM-D-150
	@ 60 Hz	4.9	
	@ 1 KHz	4.7	
	@ 1 MHz	4.4	
	Dissipation factor @ 25°C (77°F)		ASTM-D-150
	@ 60 Hz.	0.025	
	@ 1 KHz	0.018	
	@ 1 MHz	0.030	
	Volume resistivity, ohm-cm		ASTM-D-257
	@ 25°C (77°F)	7.0 x 10 ¹⁴	
	@ 95°C (203°F)	3.0 x 10 ⁸	

ENVIRONMENTAL
& SAFETY
INFORMATION:

When used properly, this material is safe to handle and poses no environmental hazard. Spills of either component should be contained with absorbent material and transferred to a closed container for disposal in an approved landfill. Unreacted components should be handled carefully. Observe all precautionary statements that appear on the product label. Users should investigate local solid waste regulations before disposal. Incineration of starting materials or product is an acceptable practice.

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TOXICOLOGY:

Part A: EPOCAST 220A is a high viscosity liquid that is considered to be slightly toxic by ingestion. Mild to moderate irritation of the eye and skin may occur upon prolonged or related exposure. Some individuals may develop dermatitis as a result of direct skin contact from this product.

Hardener: EPOCAST 951 is an amber liquid that is considered to be extremely irritating to the eyes and skin, and may cause skin sensitization after prolonged or repeated exposure. Vapors may be irritating to the mucous membranes and upper respiratory tract.

SAFETY:

When handling EPOCAST 220A/951, personnel should be equipped with protective gloves, proper eye protection and an approved respirator if local ventilation is inadequate.

Personnel should be instructed to use fresh, clean clothing daily and to wash thoroughly with soap and water at the end of the work shift.

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