



TECHNICAL INFORMATION

EPOCAP® 20216A/EPOCURE® 79B EPOXY Filter and Permeator Bonding Adhesive System

PRODUCT DESCRIPTION

EPOCAP 20216A/EPOCURE 79B is a two-component, room temperature cure, epoxy system with low shrinkage and fast gel time. It is highly cross-linked and has a high heat distortion temperature. It has an excellent resistance to water, acids, solvents, hydraulic fluids, oils and aviation fuel. It exhibits excellent resistance to high temperatures and pressures. A 4:1 parts by volume version is available as EPOCAP 14526.

HOW TO USE

The individual components containing fillers should be stirred or agitated without introducing excessive air before use to ensure that all fillers are properly dispersed. To obtain the best cured properties, accurate proportioning and thorough mixing are essential.

MIXING AND CURING SCHEDULE

Ratio	Part A	Part B
By weight	100	7.5
By volume	100	12.7

The cure schedule is dependent upon the temperature. The recommended cure schedule will vary with the desired properties. The recommended schedule to achieve the typical properties is shown below:

2 hours at 25 °C (77 °F) plus 2 hours at 100 °C (212 °F).

TYPICAL UNCURED PROPERTIES

	Part A	Part B	Mixed
Color	Off-White	Amber	Off-White
Viscosity @ 25 °C, cps	42,000	3,800	34,000
Weight per Gallon, lbs.	15.15	8.95	14.45
Specific Gravity @ 25 °C	1.82	1.07	1.73
Gel time, minutes			
100 gm mass @ 25 °C	---	---	37
Filler Type	Non-Abrasive	None	Non-Abrasive
Shelf Life (in separate sealed containers), months	12	12	---

TYPICAL CURED PROPERTIES

(Tested at 25 °C unless otherwise indicated)

Test	Result
Hardness, Shore D	93
Tensile Strength, psi	6,080
Flexural Strength, psi	8,064
Flexural Modulus, psi	1,153,923
Compressive Strength, psi	17,501
Linear Shrinkage, in/in	0.0035

TYPICAL THERMAL PROPERTIES

(Tested at 25 °C unless otherwise indicated)

Test	Result
Coefficient of Thermal Expansion, in/in/°C x 10 ⁻⁶	89
Heat Distortion Temperature @ 264 psi., °C	86
Peak Exotherm, 100 gm mass, °C	96
Recommended Service Temperature, °C	130

TYPICAL CHEMICAL RESISTANCE PROPERTIES

(Tested at 25 °C unless otherwise indicated)

Total Immersion In:	Immersion Time, Days	% Weight Gain (Loss)
Tap Water	7	0.166
	30	0.413
25% Aqueous Acetic Acid	7	0.808
	30	1.786
Ethyl Alcohol	7	0.288
	30	0.746
Varsol 18	7	0.012
	30	0.012
Toluene	7	0.005
	30	0.036
JP-4 Aviation Fuel	7	0.012
	30	0.015
Xylene @ 60 °C	7	0.204
	30	0.244
1,1,1 Trichloroethylene @ 60 °C	7	0.225
	30	0.251
Skydrol 500 B4 @ 107 °C	7	2.12
	30	4.562
Univis J-13 (Mil 5606 oil) @ 135 °C	7	0.106
	30	0.185
Turbo Oil 2389 (Mil 7808 oil) @ 135 °C	7	(0.05)
	30	(0.154)

STORAGE AND HANDLING

These materials should be stored in a dry environment within a temperature range of 16 °C to 27 °C (60 °F to 80 °F). Extremes of temperature beyond this range may result in crystallization or polymerization of the materials. Introduction of a nitrogen blanket into the containers before closing will improve the storage life of the products.

A wide variety of cleaning solutions are available for cured and uncured epoxies and polyurethanes. For more information on proper recommendations and procedures, contact the Technical Department.

SAFETY

These materials are intended for industrial use only, and the practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

Although the system contains low volatility materials, nevertheless, care should be taken in handling. Adequate ventilation of work place and ovens is essential.

These materials may cause dermatitis in susceptible individuals. Keep off skin and out of eyes. In case of accidental skin contact, wash thoroughly with soap and water. In case of eye contact, flush eyes thoroughly with water and consult a physician immediately.

Refer to Material Safety Data Sheet for additional information.

ADDITIONAL INFORMATION

Visit our web site at:

www.royaladhesives.com

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NOTE

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