



## TECHNICAL INFORMATION

### EPOCAP® 3648A/EPOWELD® 3655B Medical Adhesive System

#### PRODUCT DESCRIPTION

EPOCAP 3648A/EPOWELD 3655B is a two-component, room temperature cure epoxy adhesive system. It is designed for use in such medical applications as bonding glass or plastic syringes to stainless steel needles. The mix ratio of the system may be varied with little loss in overall cured properties. Increasing the amount of curing agent (EPOWELD 3655B) will increase the flexibility and decrease the hardness of the cured system.

All components of this system are listed under the code of Federal Regulations (CFR) Title 21 (Food and Drug Administration) Part 175 Subpart B. EPOWELD 3195 is a white version.

#### HOW TO USE

Weigh the correct proportions of parts A & B. Mix thoroughly.

#### MIXING AND CURING SCHEDULE

Ratio	Part A	Part B
By weight	100	85
By volume	100	100

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:

7 days at 25 °C (77 °F) or 2 hours at 66 °C (150 °F).

#### TYPICAL UNCURED PROPERTIES

	Part A	Part B	Mixed
Color	Lt. Amber	Amber	Amber
Viscosity @ 25 °C, cps	14,000	40,000	20,000
Weight per Gallon, lbs.	9.7	8.1	8.9
Specific Gravity @ 25 °C	1.16	0.97	1.07
Gel time, minutes			
100 gm mass @ 25 °C	---	---	125
Filler Type	None	None	None
Shelf Life (in separate sealed containers), months	12	12	---

#### TYPICAL CURED PROPERTIES

(Tested at 25 °C unless otherwise indicated)

Test	Result
Hardness, Shore D	85
Tensile Strength, psi	7,500

#### Lap Shear Strength

(Al/Al, 2024-T3 acid etched)

Cure Schedule @ 25 °C	24 hrs.	7 days
Shear Strength, psi	2,500	3,000

#### Lap Shear Strength

(Al/Al, 2024-T3 acid etched, cure schedule 2 hours @ 66 °C)

Test Temperature, °C	25
Shear Strength, psi	3,500

#### 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](http://www.royaladhesives.com)

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