



## TECHNICAL INFORMATION

### EPOWELD® 47774/57774 (formerly EPOWELD® 7774) Epoxy Adhesive System

#### PRODUCT DESCRIPTION

EPOWELD 47774/57774 is a two-component, room temperature cure epoxy system designed to set in 45 minutes in a thin (10 mil) film. This adhesive bonds well to many surfaces including metal, wood, concrete, fabrics and most plastics. Because of its low mix viscosity, this adhesive should be considered for use in applications that require a very thin glue line.

EPOWELD 47774/57774 is available in the unique DOUBLE/BUBBLE® job sized package as reorder no. 04006.

#### HOW TO USE

To obtain the best cured properties, accurate proportioning and thorough mixing are essential.

#### MIXING AND CURING SCHEDULE

Ratio	47774	57774
By weight	100	82
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:

24 hours at 25 °C (77 °F).

#### TYPICAL UNCURED PROPERTIES

	47774	57774	Mixed
	Lt. Amber	Lt. Amber	Lt. Amber
Color			
Viscosity @ 25 °C,cps	3,500	5,700	3,700
Weight per Gallon, lbs.	9.8	8.1	8.9
Specific Gravity @ 25 °C	1.18	0.97	1.07
Gel time, minutes			
4 gm mass @ 25 °C	---	---	45
Tack free time, minutes			
4 gm mass @ 25 °C	---	---	60
Flash Point, PMCC, °C	166	99	---
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	78
Impact Strength, ft.-lbs.	6.7

#### Lap Shear Strength

(Al/Al, 2024-T3 acid etched, various cure schedules)

Cure Schedule @ 25 °C	3 hours	24 hours	2 weeks
Shear Strength, psi	500	2,000	2,900

#### Hardness over a temperature range:

(Cure schedule 24 hours @ 25 °C)

Test Temperature, °C	25	66	93	121	149
Hardness, Shore D	78	12	8	8	6

#### TYPICAL CHEMICAL RESISTANCE PROPERTIES

(Tested at 25 °C unless otherwise indicated)

Total Immersion In:	Immersion Time, Days	% Weight Gain (Loss)
Water	1	0.10
	8	0.50
Ethyl Alcohol 50% Solution	1	1.34
	8	9.90
Hydrochloric Acid (2N)	1	0.22
	8	1.94
Sulfuric Acid, 30% Solution	1	0.16
	8	1.56
Toluene	1	0.25
	8	2.06
1,1,1 Trichloroethane	1	11.10
	8	37.00
VM+P Naphtha	1	0.04
	8	0.40

#### 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 re-



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sult 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, care should be taken in handling. Use adequate ventilation in the work area.

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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### NOTE

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