



**Pacific Polymers**

A Division of **ITW**

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# RES-CRETE R.C.C.R.

## CHEMICAL RESISTANT EPOXY COATING

### 1. PRODUCT NAME

**RES-CRETE R.C.C.R.** (Chemical Resistant)

**RES-CRETE R.C.C.R.** is a two-component chemical resistant, durable epoxy system formulated for use in a variety of harsh chemical and corrosion resistant applications.

### 2. MANUFACTURER

PACIFIC POLYMERS (A Division of ITW)  
12271 Monarch Street  
Garden Grove, CA 92841  
Tel: 1- 800-888-8340  
Fax: 714-898-5687

### 3. PRODUCT DESCRIPTION

**Composition:** **RES-CRETE R.C.C.R.** is based on a modified Epichlorohydrin Bisphenol-A type epoxy resin cured with a polyamine hardener.

#### Basic Uses:

- **RES-CRETE R.C.C.R.** is a liquid applied, two part, 100% solids, epoxy system which provides a high build, acid and alkali resistant coating.
- **RES-CRETE R.C.C.R.** is particularly well suited for use as a floor coating in chemical process plants, metal finishing plants, steel mills, food processing plants, sewage and waste treatment plants.
- **RES-CRETE R.C.C.R.** can be used in trenches and pits, and provides protection on concrete, steel or wood.
- **RES-CRETE R.C.C.R.** can also be used as a sealer or glaze coat for added protection on a standard epoxy floor system.

**Standard Color:** Clear and Concrete Grey.

**Sizes:** 1.5 gallon kit

### WARNINGS AND HAZARDS:

Before using the products, always refer to MSDS for important warnings and safety information. Use only in areas with adequate ventilation. Avoid breathing vapors. Keep away from heat and flame. Avoid contact with eyes and skin. In the event of skin contact, remove immediately and wash with warm, soapy water. Wear suitable eye protection. Always wash hands before eating.

### 4. TECHNICAL DATA

(See chart on Page 3 for technical data. (For chemical resistance, see Page 4.)

### 5. INSTALLATION

All concrete surfaces must be clean and sound. Sandblasting is recommended, when possible, otherwise acid etching or wire-brushing may be sufficient. Units are proportioned at the factory, so no measuring is needed on the jobsite. Combine component A and B and mix thoroughly using a drill with jiffy mixing blade or similar for 3-5 minutes by the clock under speed not exceeding 400 rpm. The mixed compound may be applied by brush, roller, and/or squeegee followed by back-roll. High temperatures will significantly reduce the work life of the material. Do not store the material in direct sunlight prior to using.

#### Coverage:

The recommended rate of application for the **RES-CRETE R.C.C.R.** is two coats minimum, at a rate of 100 to 150 square feet per gallon (2.45-3.68 m<sup>2</sup>/liter) per coat. An aggregate such as #20 mesh aluminum oxide, may be broadcast into the top coat, at the desired rate, for skid resistance if needed.

Another method of desired application is to trowel a 1/4" (6.4mm) topping mortar. To one gallon of mixed compound, between 3 and 5 parts by volume of aggregate may be added to prepare the topping mortar.

It will tolerate more coarse aggregate and less fine aggregate. Prime the surface with some of the straight, mixed **RES-CRETE R.C.C.R.** before troweling the mortar or an epoxy primer such as ELASTO-POXY PRIMER (VOC) can be used. This will insure good wetting of the substrate.

An alternate method of preparing the **RES-CRETE R.C.C.R.** overlay consists of applying a heavy coat of the mixed compound at a coverage of 50 square feet per gallon (1.23 m<sup>2</sup>/liter), using a roller or a trowel. Broadcast a rather coarse aggregate, such as a #12 mesh aluminum oxide, into the wet material and allow overnight cure time. Next day, apply another coating of mixed **RES-CRETE R.C.C.R.** at a rate of 75 square feet per gallon (1.84 m<sup>2</sup>/liter). Most of the aggregate will be embedded but enough protrudes to give traction. Total thickness will range between 1/8 to 3/16 inch (3.2mm to 4.8mm).

#### 6. AVAILABILITY AND COST

**RES-CRETE R.C.C.R.** is supplied through building material dealers. Prices vary with quantity and packaging. Quotations are made on request.

These products are designed and manufactured to be installed by professional installers familiar with surface preparation and application procedures. All others should consult a professional installer; those who choose to install these products without professional assistance do so at their own risk.

#### 7. PRODUCT WARRANTY

Satisfactory results depend not only upon quality products but also upon factors beyond our control; methods of application and site conditions are examples of such factors and can affect product performance. This warranty consequently extends only to products installed in strict accordance with the manufacturer's specifications. It is the user's responsibility to satisfy himself, by his own information and tests, of the suitability of the product for his own intended use; user assumes all risk and liability resulting from his use of the product. The substrate to which the product is applied must be sound structurally and otherwise. Structural or substrate failures or imperfections resulting in damage to or failure of the product are not covered by this warranty. Since the use of the product is beyond the control of the manufacturer, the manufacturer

assumes no liability for misapplication and misuse of the product.

This warranty does not cover consequential damages, nor does it cover the labor attendant to replacing product in the event of a product failure. The warranty only extends to replacement of the product itself.

All products proven to be defective in manufacture will be replaced at no charge. Since the use of these products is beyond our control we cannot assume any risk or liability for results obtained, nor can we accept damages in excess of the purchase price of these products.

#### 8. MAINTENANCE

If **RES-CRETE R.C.C.R.** is damaged, and the surface has not been contaminated, it can be replaced by sanding that area and re-coating it with **RES-CRETE R.C.C.R.**

#### 9. TECHNICAL SERVICES

All of the latest updates to product data and specifications are available at the Pacific Polymers, website at [www.pacpoly.com](http://www.pacpoly.com). Since product data and specifications change, it is the user's responsibility to make certain the most current versions of product data and specifications are being used.

Technical assistance can be obtained by contacting:

PACIFIC POLYMERS (A Division of ITW)  
12271 Monarch Street  
Garden Grove, CA 92841  
Tel: 1- 800-888-8340  
Fax: 714-898-5687

**4. TECHNICAL DATA – RES-CRETE R.C.C.R.**

<b>PROPERTY</b>	<b>TEST METHOD</b>	<b>RESULTS</b>
Hardness (Shore D)	ASTM D-2240	80 ± 5
Potlife at 77°F (25°C)	---	50 ± 5 minutes
Tack Free Time at 77°F (25°C)	---	7-8 hours
Viscosity (mixed at 77°F (25°C) A-Component B-Component	Brookfield Viscometer	Pigmented- 15 poise Clear- 6 poise 8 poise
Mix Ratio (volume) (A: B) Pigmented Clear		1 : 0.5 1 : 0.6
Tensile Strength	ASTM D-638	8,500 psi
Percent Elongation	ASTM D-638	3%
Flexural Strength	ASTM D-790	12,000 psi
Flexural Modulus	ASTM D-790	3.77 X 10 <sup>5</sup> psi
Compressive Strength	ASTM D-695	11,500 psi
Bond Strength	ASTM C-882	2,300 psi
Weight per Gallon Clear- A-Component B-Component Pigmented- A-Component B-Component	---	9.20 pounds 8.63 pounds 10.40 pounds 8.63 pounds
V.O.C. (gr/liter)	ASTM D-2369-98	< = 20 gram
Solids Content (Weight/Volume)		> 99%
Initial Set Time (for light traffic)	---	12 to 14 hours at 77°F (25°C)
Cure Time	---	1-2 days at 77°F (25°C)
Curing Temperature Limit	---	less than 45°F (4°C)

## Chemical Resistance

Chemical Resistance as indicated by percentage weight change.

Condition: 77°F (25°C).

Product	Weight Change (%)		
	<u>3weeks</u>	<u>3months</u>	
<b><u>1) Solvents</u></b>			
Butanol	0.1	0.7	
Diethyl Ether	2.7	3.1	
Dimethylsulphate	2.0	3.5	
Ethyl Acetate	14.20	11.7	
Hexane	0.3	0.4	
Methylated Spirit	5.5	7.20	
Propanol	0.5	2.5	
Toluene	0.6	0.9	
Xylene	0.5	0.7	
Chlorinated solvents	NOT RECOMMENDED		
<b><u>2) Acids</u></b>			
5% Citric Acid	1.1	1.9	
20% Citric Acid	1.1	1.8	
80% Citric Acid	1.3	1.7	
5% Acetic Acid	3.9	6.9	
30% Lactic Acid	10.8	19.5	
10% Tartaric Acids	1.2	2.0	
Pure Oleic Acid	0.3	0.5	
30% Nitric Acid	2.9	4.5	
50% Phosphoric Acid	9.7	19.2 (damaged)	
75% Sulphuric Acid (discolored)	0.6	6.7	(Slight discoloration after 24 hour exposure)
			Jet Fuel
			No effect
			(Slight discoloration after 24 hour exposure)
<b><u>3. Foodstuff and Cleaning Fluids</u></b>			
Beer	1.1	1.9	
Wine	1.2	1.9	
Whiskey	1.5	2.6	
Carrot Juice	1.3	2.0	
Vegetable Juice	0.9	1.7	
Milk	3.8	2.6	
5% Starch Solution	1.2	1.9	
10% Lecithin Soya Bean	1.2	2.0	
Hydrogen Peroxide	1.0	1.9	
Sodium Hypochlorite	0.9	1.4	
20% Ammonium Persulphate	1.0	2.0	
50% Sodium Hydroxide Solution	0.8	1.5	
6M Sodium Hydroxide	0.6	1.0	
0.88 Ammonia	1.0	2.0	
<b><u>4. Miscellaneous</u></b>			
Skydrol	No effect		

The above substances must be cleaned within a few hours of spills.