

## ICO-POLY CRETE™

### Product Description

ICO Poly Crete™ is a water based epoxy resin that when mixed with Portland Cement and aggregate forms a superior strength polymer cement, compared to conventional mixes made with acrylic latex. It has excellent adhesion to conventional concrete, even if it is damp. It can be applied on horizontal surfaces in virtually any thickness down to ¼" and can be recoated in 24 hours, per 1" of thickness. Compared to conventional thin set material, **ICO Poly Crete** develops a much higher strength and thus, is not susceptible to crumbling under heavy loads even when applied down to ¼".

Applied on vertical surfaces, **ICO Poly Crete V** is an economical filler material that cures hard in about 16 hours at 75°F. Normally applied up to an 1/8"-1/4" per pass, it is particularly well suited for filling badly eroded concrete walls prior to application of a chemical resistant coating.

### Typical Application

**ICO Poly Crete** offers a high strength, dense underlayment for sloping floors or filling deep holes. It can also be used for rebuilding pump bases, building curbs and building up low areas by several inches.

**ICO Poly Crete V** is frequently used for smoothing vertical concrete walls that have been seriously eroded by acid attack, for example, secondary containment berms in chemical plants and clarifiers and concrete holding tanks in industrial waste treatment facilities.

### Chemical Resistance

**ICO Poly Crete™** should be topcoated with one of **International Coating's** more chemically resistant coatings for exposure to corrosive or hazardous chemicals. A complete list of chemical resistance is available in the **International Coatings Chemical Resistant Chart**.

### Physical Properties (for ICO Poly Crete)

Tensile Strength (ASTM C 190)	: 900 psi
Compression Strength (ASTMC109)	: 5700 psi
Flexural Strength (ASTM C580)	: 1900 psi
Gardner Impact Strength (ASTM D2794)	> 200 in lbs
Bond Strength (ASTM D 4541)	: > 400 psi

### Physical Characteristics (For Poly Crete unless otherwise noted)

Density, lbs/gal	Mixing Ratios	Poly Crete		Poly Crete V	
		By Volume	By Weight	By Volume	By Weight
Pt. A 9.1	A : B	1 : 2	0.55 : 1	1 : 2	0.55 : 1
Pt. B 8.3	Cement/Liquid	1.6 : 1	1.9 : 1	1 : 1	1.2 : 1
	Aggregate/Liquid	3.4 : 1	6 : 1	1.33 : 1	2.2 : 1
Viscosity, cps	Curing Times				
	@ 75°F @ 35% RH		Poly Crete @ 1" Thick	Poly Crete V @ 1/8" Thick	
Pt. A 1350	Pot Life	50 min.	50 min.		
Pt. B 2100	Recoat	24 hrs.	16 hrs.		
	Ready for Sanding	---	16 hrs.		
	Heavy Traffic	48 hrs.			

**Shelf Life:** 1 year minimum in unopened container

### Color Availability

Standard colors: unpigmented concrete gray

### Packaging and Coverage Rates (for Poly Crete)

<b>Basic Kit</b>	3 Gallons with aggregate 1.7 cu ft. (20.4 Sq ft. at 1")
<b>Bulk Pack</b>	15 Gallons with aggregate 8.5 cu ft. (102 Sq Ft. at 1")
<b>Drum Kit</b>	75 Gallons with aggregate, 42.5 cu.ft. (510 SF @ 1")

## Installation

1. Concrete must be clean and free of contaminants such as grease or oil or curing compounds. Remove all weak or loose concrete by mechanical means.
2. Mix **ICO Poly-Crete** liquid (1 Part A : 2 Part B) and prime all surfaces at a rate of 100-110 SF per gallon. While the liquid is wet or tacky, place the topping. If cured for more than 4 hours @ 75°F, reprime first.
3. Mix in a clean, predampened mortar mixer. Blend the liquid first and then add preblended aggregate and cement, then mix for 5 minutes. Suggested Mixing Ratios.

	Heavy Topping > 1"	Topping < 1"	Vertical
ICO Poly Crete, Part A	1 Gal	1 Gal	.4 Gal
Part B	2 Gal	2 Gal	.8 Gal
Port Cement I	47 lbs.	47 lbs.	12.3 lbs.
Angular Sand 30-50 mesh	50 lbs.	150 lbs.	----
Fine Silica Blend	----	----	23 lbs.
Gravel, approx 1/8"-1/4"	100 lbs.	----	----
Volume	1.7 Cu Ft	1.7 Cu Ft.	3 Gal

4. Use screed strips to control the slope and thickness of **ICO Poly Crete**. Use standard concrete placement and finishing technique. Use flat trowels, predampened with water, to finish.
5. Do not attempt to cure or retemper the surface with additional water.
6. In dry or hot environments, cover with plastic sheets to slow down evaporation.
7. Prior to topcoating, allow **ICO Poly Crete** to cure for 24 hours per 1" of thickness. If cured for > 5 days, roughen surface first.
8. For vertical surfaces, apply **ICO Poly Crete V** by rubber floats or just hand rubbing to fill voids and air holes. Wipe excess off the surface.

**Notes:** 1. Store at moderate temperature (50°-90°F). Optimum temperature of application: 60°-70°F. Do not apply below 50°F. **Keep From Freezing.**

## Precautions

While **ICO Poly Crete** is not corrosive, simple precautions such as wearing safety glasses and latex gloves should be used. Wear proper dust masks when handling Portland Cement.

## Product Specification

The specified area shall receive an application of **ICO Poly Crete** as manufactured by **International Coatings, Franklin Park, IL**. The material shall be a low odor epoxy with excellent adhesion to both dry and damp concrete. It should be applicable in virtually any thickness down to 1/4" in a single pass. It shall have a tensile strength of 900 psi (ASTM C - 190), a compression strength of 5900 psi (C - 109) and a Gardner Impact Strength of > 200 inch pound.

## Technical Assistance

Our many years of installation experience enable us to provide valuable input on not only proper material selection but also installation techniques that will help assure your satisfaction. We have qualified personnel to inspect your floors, analyze the cause of the problems and design procedures and specifications to prolong the useful life of your floors. We furnish detailed application specifications including drawings of necessary details to be used. We are prepared to offer job site instruction for your in-house maintenance crews or to work closely with your preferred applicator. We can also furnish a list of a network of **ICO** trained certified contractors.

## Mission Statement

**Our mission is to provide our customers the highest possible quality products and services and by so doing, build long term relationships based on mutual trust and respect.**

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The data, statements and recommendations set forth in this product information sheet are based on testing, research and other development work which has been carefully conducted by us, and we believe such data, statements and recommendations will serve as reliable guidelines. However, this product is subject to numerable uses under varying conditions over which we have no control, and accordingly, we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and particular use or uses.

**WARRANTY** - All products manufactured by us are warranted to be first class material and free from defects in material and workmanship.

Liability under this warranty is limited to the net purchase price of any such products proven defective or, at our option, to the repair or replacement of said products upon their return to us transportation prepaid. All claims hereunder on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other materials and products. WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE SUITABILITY OF ANY OF OUR PRODUCTS FOR ANY PARTICULAR USE, AND WE SHALL NOT BE SUBJECT TO LIABILITY FROM ANY DAMAGES RESULTING FROM THEIR USE IN OPERATIONS NOT UNDER OUR DIRECT CONTROL.

THIS WARRANTY IS EXCLUSIVE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND NO REPRESENTATIVE OF OURS OR ANY OTHER PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF OUR PRODUCTS.

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