

ICO – GROUT CR

Product Description

ICO Grout CR is a 100% solids, three part, pourable epoxy grout that can be applied in a single step in any thickness without shrinkage or cracking. It is a highly chemical resistant epoxy novolac material that provides long term resistance to most inorganic acids and caustics. As a resin-rich, impervious solid material, it does not need to be top coated. It has excellent damp as well as dry adhesion to properly prepared concrete and other masonry and metal structures.

Unlike conventional chemically-resistant grouts, **ICO Grout CR** is flexibilized to better withstand vibration, thermal shock and impact. It is available in 4 gallon pre-measured kits and 20 gallon bulk packs. Its relatively free-flowing characteristics minimize installation time and it can be returned to full service within 12 to 16 hours. Recommended application temperatures are: 50°-90°F; however service temperatures can range between -40°F and 250°F.

Product Applications

ICO Grout CR is well suited for use as a base for pumps, tanks, anchor bolts and vibratory equipment, as well as machinery and column supports in highly corrosive areas like chemical plants, pulp and paper mills and mining operations. With its excellent adhesion and single-step, fast cure applications, it is particularly suited for repair of eroded bases, thereby saving considerable downtime, as well as the cost of totally removing the equipment and pouring an entirely new base. It can be used in areas seeing constant exposure to 98% sulfuric acid and other highly concentrated inorganic acids. For less corrosive environments, our higher compression strength **ICO E-Grout** epoxy grout is recommended.

Chemical Resistance

ICO Grout CR resists long term contact (at least 30 days) in such harsh reagents as 98% sulfuric, 85% phosphoric, 37% hydrochloric, 30% chromic and 30% nitric acid, as well as all caustics, oils, fuels and some solvents, so long as the reagents are below 140°F.

A complete listing of **ICO Grout CR's** chemical resistant properties can be found in **International Coatings' Chemical Resistance Chart** under "ICO Hi Guard"

Physical Properties

Tensile Strength (ASTM C307)	: 2209psi	Bond Strength to Concrete	: >400psi (concrete fails)
Tensile Elongation (D-638, unfilled)	: 5%	Flammability	: Self extinguishing
Flexural Strength (C-580)	: 3830psi ₆	Gardener Impact (D-2794)	: >160inch – lbs.
Flexural Strength (C-580)	: 3.8 x 10	Water Absorption	: 0.2% in 24 hours
Compressive Strength (C579)	: 10,500 psi	Hardness, Shore D (D-2240)	: 75
Coefficient of Thermal Expansion (D-696)	: 5.9x10 ⁻⁵ per °F		

Physical Characteristics

Density, lbs/gal.	Mixing Ratios	By Volume	By Weight	
Pt. A : 9.7	Pt. A : Pt. B	1.9:1	2.1:1	
Pt. B : 8.8	Aggregate : Liquid	2:1	4.5:1	
A&B Mixed : 9.5	Curing Times @	50°F	70°F	90°F
	Pot Life	30min	25min	10-15min
Viscosity@77°F, cps	Work Time	30min	25min	10min
Pt. A : 450	Cure Hard	24hrs	12hrs	5hrs
Pt. B : 600				
A&B Mixed : 500				
Shelf Life				

NOTE: Maximum Hardness and chemical resistance are achieved after 7 days at 77°F.

1 year at 77°F in unopened containers.

Color Availability

Gray, Dark Gray, Red and Black

Packaging and Coverage Rates

0.45 cu. ft Basic : 5SF at 1" thickness
4.5 cu. ft. Bulk : 50SF at 1" thickness

Installation

Please refer to our Application Specs for detailed instructions. Particular care must be taken to follow those instructions precisely to assure proper installation.

1. New concrete should be allowed to cure for at least 7 days at 70°F, 50% RH.
2. Contaminants such as oils and greases should first be removed by chemical means, followed by mechanical preparation, including scarification, diamond grinding or shot blasting to obtain a clean abraded surface. Old coatings must be removed.
3. **ICO Grout CR** is designed as a pourable mix, usually into a pre-made wooden form. The form should be pre-waxed to ensure easy removal after setup.
4. No primer necessary.
5. Mix Part B with Part A for 30 to 60 seconds in a paddle-style mixer, until uniform, followed by addition of the **ICO Fill Grout CR** mix and dry tint for another 30 seconds until uniform in color and consistency.
6. Immediately pour out contents of mix into form and level out lightly with steel trowel. Material can be poured in any thickness in a single pass down to ½" thickness.
7. Tools can be cleaned with toluene, xylene or mineral spirits.

Failure to follow the above instructions, unless expressly authorized by an ICO Technical Service Representative, will void our material warranty

Precautions

1. Do not apply below 50°F
2. Do not try to feather edge.

Product Specification

The specified area shall receive an application of **ICO Grout CR** as manufactured by **International Coatings, Franklin Park, IL**. The material shall be installed by precisely following the manufacturer's published recommendations. The material shall be a 100% solids, zero VOC, three-part epoxy novolac grout that is pourable in any thickness down to ½" without any shrinkage. It shall be a flexibilized material with a tensile elongation (resin only) of 5% and a Gardner Impact strength of 160 inch - pounds. It shall have a maximum compressive strength of 10,500psi. It shall have a maximum aggregate: liquid fill ration of 2:1 by volume. It shall be chemically resistant to such acids as 98% sulfuric, 85% phosphoric, 37% hydrochloric and 30% nitric acid, as well as concentrated caustics, for a minimum 30 day immersion service.

Mission Statement

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

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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