



# ICO Caulk

## Product Data Sheet

### Product Description

ICO Caulk™ is a two-part, 100% solids semi-rigid epoxy caulk. It has excellent adhesion to concrete, metal, wood, brick and tile, on both damp and dry surfaces. It is USDA-approved, has virtually no odor and no toxic byproducts. ICO Caulk has good chemical resistance to most common cleaners, battery acids, fuel oils, and some solvents. As a semi-rigid epoxy, with a Shore a Hardness of 85 and a tensile elongation of 36%, ICO Caulk™ will better withstand heavy traffic, compared to a flexible urethane or silicone caulk. It dries to a glossy easy-to-clean finish. ICO Caulk™ is available in a pourable or gun grade in either a regular cure or fast cure ("FC") grade in one gallon or 4 gallon kits in all our standard colors.

### Typical Application

ICO Caulk™ is a durable expansion or control joint material for inside applications where limited movement is expected. It possesses significantly higher tensile strength and bond strengths than elastomeric and thus, is a far better joint material under heavier wear conditions. ICO Caulk™ is particularly effective in damp environments, such as food process plants. For new concrete and for moving joints, our ICO Lastic Gun Grade is recommended. For outside applications, use ICO Caulk X.

### Chemical Resistance

ICO Caulk™ will withstand chemical attack for up to 24 hours at 75°F in the following chemicals:

Acetic Acid, 10%	Hydrochloric Acid, 37%	Salt Solution, Saturated	Brine
Brake Fluid	Lactic Acid, 10%	Skydrol	
Butyl Cellusolv	Mineral Spirits	Sodium Hydroxide, 50%	
Citric Acid, 20%	Nitric Acid, 10%	Sodium Hypochlorite, 5%	
Diesel Fuel	Phosphoric Acid, 30%	Sulfuric Acid, 50%	

### Physical Properties

<b>Tensile Strength (ASTM D-638) Pourable:</b>	700 psi	<b>Hardness, Shore A (D-2240):</b>	85
<b>Tensile Strength (ASTM D-638) Gun Grade:</b>	2000 psi	<b>Shrinkage:</b>	0%
<b>Tensile Elongation (D-638) Pourable:</b>	36%	<b>Bond Strength to Concrete (Concrete Fails):</b>	>350 psi
<b>Tensile Elongation (D-638) Gun Grade:</b>	32%	<b>Bond Strength to Quarry Tile:</b>	450 psi
<b>Hardness, Shore D (D-2240)</b>	33		

**Physical Characteristics** (All data are for ICO-Caulk, pourable, unless otherwise noted)

Density, Lbs./Gal	Pourable	Gun Grade
Part A	9.8	10.5
Part B	8.6	8.8
A&B Mixed	9.4	9.9
Viscosity @77°, cps	Pourable	Gun Grade
Part A	240	66,000
Part B	550	45,000
A&B Mixed	310	52,000
Mixing Ratios	By Volume	By Weight
Part A: Part B	1.8:1	2:1
Part A: Part B FC	2.3:1	2.6:1
Part A: Part B, Gun Grade	1.8:1	2.2:1
Part A: Part B, Gun Grade FC	2.3:1	2.9:1
Curing Times @	50°F	77°F
Pot Life	35 min	30 min
Working Time	3.5 hrs.	2 hrs.
Hard, Foot Traffic	22 hrs.	6 hrs.
Pot Life- FC	30 min	20 min
Working Time- FC	50 min	20 min
Hard, Foot Traffic- FC	5 hrs.	2 hrs.
Shelf Life: 1 year at 77°F in unopened containers		

**\*Maximum hardness and chemical resistance are achieved after 7 days cure.**

Color Availability	Packaging and Coverage Rates
Standard Colors: White, Gray, Dark Gray, Beige, Red, & Black.	ICO-Caulk or ICO –Caulk Gun Grade is available in one gallon and four gallon kits. Coverage for ½" x ½" joint is approximately 75 LF per gallon.

### 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. To existing expansion joints, remove any existing sealant and soft backing board. Clean out loose debris, oils and grease and other contaminants either by muriatic acid or mechanical routing. Apply a backing rod material slightly larger than the opening to a depth of one half the width.
2. ICO Caulk™ is a self-priming material, so no primer is necessary. However, for particularly porous substrates, you can prime first with ICO Primer LV.
3. Mix entire contents of Part A and Part B together for 1-2 minutes, until a uniform color is present.
4. Either pour into joint, or for the gun grade, use a trowel or spatula to apply the material. For a cleaner finish, tape both sides of joint and remove before caulk sets dry.
5. If backing rod does not fit tightly, it is better to pour in to about half the finished depth, allow to dry and then top off in a second pass to eliminate any separation due to drainage.

Failure to follow the above instructions, unless expressly authorized by a Milamar Technical Service Representative, will void our material warranty.

### Precautions

1. Apply inside only and where slab movement is limited.
2. Do not apply Regular Cure version below 50°F. Use Fast Cure down to 40°F.
3. Elasticity reduced as temperatures decrease.

### Product Specification

The specified area shall receive an application of ICO-Caulk™ as manufactured by Milamar Coatings LLC, Oklahoma City, Oklahoma. The system shall be installed by precisely following the manufacturers published

recommendation pertaining to surface preparation, mixing and application. The material shall be a low odor, 100% solid, two part epoxy, available in pourable or gun grade. It shall have a tensile elongation of 36% when tested using ASTM D-638 and a Shore D Hardness of 33. The system shall be usable in a temperature range of 50°F-90°F. It shall have excellent damp as well as dry adhesion to concrete, brick and tile, metal and wood. The system shall resist chemical attack for up to 72 hours from such acids as 10% nitric, 30% phosphoric, 37 % hydrochloric, 50% sulfuric, and 10% lactic, as well as 50% caustic, brake fluids and diesel fuels.

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.

### LIMITED WARRANTY

Milamar Coatings products are manufactured to be free of defects in material and workmanship in meeting the properties specified on its individual Product Data Sheets. Users and installers of Milamar Coatings products are solely responsible for determining the suitability of the products for specific product applications. Milamar Coatings makes no Warranty or Guarantee, express or implied, including warranties of fitness, design compatibility or merchantability, for any particular use and shall have no responsibility or liability, including direct, indirect or consequential damages, due to injury, delay or third party claims for installation or repair. Likewise, Milamar Coatings assumes no liability of any nature for products that are adjusted in the field or that do not utilize all specified Milamar Coatings components. Should any Milamar Coatings product be proved to be defective within one year from the date of shipment, Milamar Coatings will, at its sole discretion, either replace the material; issue a credit to the customer's account; or provide a cash refund for the initial, paid purchase price of the material. Potential claims regarding product quality must be received in writing by Milamar Coatings within 30 days of the discovery of such potential defect. This Warranty is exclusive of all other warranties, expressed or implied, and may only be adjusted in writing, signed by an officer of Milamar Coatings, L.L.C.

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