



TECHNICAL DATA SHEET

1. PRODUCT NAME

C² JOINT FILL

2. SELLER

CRETE COLORS INTERNATIONAL

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3. PRODUCT DESCRIPTION

Composition

C² Joint Fill is a rapid-setting polyurea polymer liquid of 100% solids content. When cured, **C² Joint Fill** is a gray, rubberlike solid with a hardness of Shore A86-90.

Basic Use

C² Joint Fill was developed to fill and protect joints in trafficked industrial and retail concrete floors. Its primary function is to support such traffic and protect joint edges. **C² Joint Fill** is intended for use where final temperatures are from 0°C (32°F) to 49°C (+120°F).

Other Uses

C² Joint Fill is also ideal for filling random cracks in industrial floors.

4. LIMITATIONS

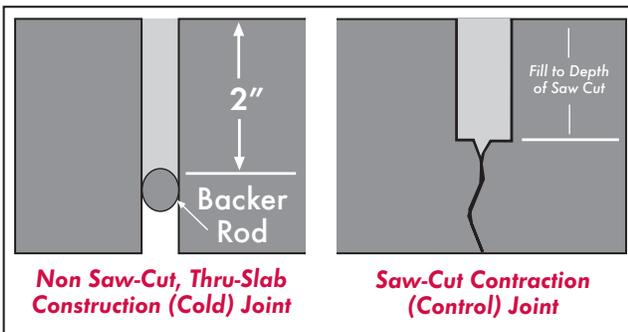
C² Joint Fill is not recommended for use under VCT or other non-breathing flooring systems.

C² Joint Fill is designed for interior use and may not be suitable for outdoor applications due to thermal movement.

C² Joint Fill may exhibit bubbling and/or compromised adhesion if concrete or ambient moisture levels are excessive.

5. CORRECT JOINT DESIGN/INSTALLATION

C² Joint Fill should be installed full joint depth in saw-cut contraction/control joints (or 2" minimum in saw-cut joints exceeding 2" in depth) per PCA and ACI guidelines.



In construction (formed) joints that are not saw-cut, **C² Joint Fill** should be installed at a minimum 2" depth. **DO NOT USE COMPRESSIBLE BACKER ROD IN STANDARD SAW-CUT CONTRACTION/CONTROL JOINTS!** Rod may be used 2" down in construction joints or saw-cut joints exceeding 2" in depth ONLY.

Low Emitting Sealant/Filler Complies with:



LEED v4.1

- BD&C, ID&C
- The WELL Building Standard
- ANSI/GBI 01, Green Building Assessment Protocol
- Green Guide for Healthcare V2.2

6. ADVANTAGES

- **C² JOINT FILL IS RATED "HEAVY-DUTY"**
Unlike softer polyureas, **C² Joint Fill's** higher shore hardness provides greater edge protection and support.
- **C² JOINT FILL IS "RAPID-SETTING"**
At 21°C (70°F) it can be opened to full traffic in as little as 60 minutes and light traffic in 30 minutes.
- **C² JOINT FILL IS COLORFAST**
C² Joint Fill maintains a consistent color profile and resists fading and other discoloration under normal conditions.
- **IDEAL FOR USE IN STAINED/POLISHED FLOORS**
C² Joint Fill can be used to fill joints and cracks in polished concrete floors, and will not smudge or smear during grinding/polishing.

7. COLOR, PACKAGING AND ACCESSORIES

Standard color is Standard Gray. Over 68 standard colors are also available. Product is available in 36L kits (A+B units) and 600 ml (300:300) dual-cartridge convenience kits.

8. APPLICABLE SPECIFICATIONS

There are no government or ASTM standards for semi-rigid joint fillers. **C² Joint Fill** meets or exceeds the criteria outline in the following industry standards:
American Concrete Institute (ACI) Guides/Specifications: 301-16, 302.1-R15, 310-R13, 360R-10
Portland Cement Association (PCA):
Concrete Floors on Ground, Third Edition 2008

9. USDA/FDA/CFIA/LEED V4.1 APPROVAL

C² Joint Fill is acceptable for use in USDA, FDA, and CFIA regulated facilities. **C² Joint Fill** contains no VOC's and is fully compliant with USGBC[®] LEED v4.1 green building standards.

7. TECHNICAL PROPERTIES

TEST	METHOD	RESULTS
HARDNESS, SHORE "A" @ 70°F	D-2240	A86-90
TENSILE STRENGTH	D-638	970 PSI
TENSILE ELONGATION*(@ 70°F)	D-638	180%
ADHESION TO CONCRETE	D-4541	350-400 PSI
TACK FREE @ 70°F	-	5 Minutes
TRAFFIC READY @ 70° F	-	1 Hour
MIX RATIO (by vol.)	-	1:1
SOLIDS CONTENT	-	100%
SHRINKAGE	-	Negligible

* This property provided only for comparison with other polyureas. Elongation is not an indication of expansion capability.

11. TECHNICAL ASSISTANCE

Factory personnel are available for product, environment and job-safety assistance with no obligation. Email us at sales@cretecolors.com for technical support.

12. INSTALLATION

The following instructions are **ABBREVIATED**. Complete instructions are provided with each shipment.

When to Install - The installation of **C² Joint Fill** should be deferred as long as possible after slab placement, and should not be installed prior to 30 days to ensure adequate adhesion. ACI recommends a slab cure of 60-90 days or longer, to permit for greater concrete shrinkage/joint opening, lessening the expected incidence of joint filler separation. Ambient areas should be stabilized at final operating temperature prior to installation, refrigerated/frozen goods areas stabilized and held for an additional 7-14 days or longer, if possible.

Joint Preparation - Joints should be completely free of saw laitance, dirt, debris, coatings/sealers and frost or visible moisture. Joint cleaning procedures must accomplish the removal of all of the above. Failure to do so will compromise adhesion. Simply "raking" debris out of joint is not an acceptable cleaning method. Preferred methods of joint cleaning include using a dustless concrete saw with diamond blade (ensure blade is slightly wider than joint or clean both sides) or sandblasting. No primer is needed. If unusual conditions are present, contact Crete Colors International.

Choking off the base of the joint is normally not required due to **C² Joint Fill's** rapid set. Do not use compressible backer rod (Ethafoam, etc) in saw-cut joints less than 2" deep.

Prior to Dispensing - Thoroughly read SDS and complete installation instructions prior to opening containers or attempting to dispense.

C² Joint Fill must be dispensed with dual-feed power dispensing equipment, or with pre-filled, dual-dispense cartridge kits. Manual dispensing is impractical due to short working life (1-2 minute gel time). Power dispensing systems should be set to a 1:1 ratio by volume. If installing in cooler temperatures, material should be maintained at a minimum temperature of 24°C (75°F) for best results. We recommend the use of a 1/2" diameter (ID) static mixer with 30 or 32 elements for material dispensing and proper mix. We strongly recommend performing periodic ratio checks on power dispense units to ensure proper cure.

Material provided in Part A Polyol pails should be thoroughly mixed to redistribute any settlement that may have occurred during shipping or storage. Cartridges should be shaken aggressively to accomplish same.

Pump tanks, lines and dispensing manifold should be clean and free of any residual materials remaining from previous filler installations.

Dispensing

Joints can be filled in one or two passes, depending upon joint depth and dispensing tip used. Preferred method is to fill from bottom to top using a dispensing tip that fits into the joint. Take care not to entrap air bubbles. Slightly overfill the joint, leaving a crowned profile, and allow to cure.

Finishing

The crown may be easily razored off as early as 15 minutes after placement, depending upon temperature. We recommend testing various shave times to find the optimal shave, which results in a filler profile that is flush with the floor's surface and free of any film from material overfill. If shave time is substantially delayed or if temperatures are low, **C² Joint Fill** shaving process may be more labored.

Finishing (Continued)

Should filler cure below the floor surface (due to settlement into the void at base of joint, etc.), remove top 1/2" of filler and re-apply **C² Joint Fill**. Grinding/polishing operations should be deferred for one hour or more after placement. If using FAST PACK addition, 25-30 minutes or more.

Cleanup

Spills of unmixed components can be cleaned up with solvent (MEK, denatured alcohol, etc) or scraped/shaved off floor and tools if cured.

13. USE IN GROUND/POLISHED CONCRETE FLOORS

When sequencing product installation as part of a concrete grinding/polishing process, installation can be done prior to grinding/honing if the first tool used is to be 40 grit or higher. Installation can also be deferred until prior to the last metal or transitional tooling step. The earliest the installed filler should be subjected to honing is 30 minutes if using a wet process, 3-4 hours if using a dry process (at 24°C).

Note: Some higher grit polishing operations can generate sufficient heat to melt or smear joint fillers, depending upon equipment and job conditions.

If melting or smearing is detected, stop operations and test potential

methods of reducing slab surface heat, including misting joints with water, altering the speed of polishing operations, re-shaving the joint filler or changing tooling. Please contact our technical service department for more information or assistance.

14. MAINTENANCE

Once cured, **C² Joint Fill** is basically maintenance free. If joints should open after installation, fill voids with additional **C² Joint Fill**

15. Approximate Coverage Chart

Joint Size (US)	LF/Gal.	Joint Size (Metric)	M/Gal
1/8" x 1 1/2"	100	3 x 38	30
1/8" x 1 3/4"	85	3 x 44	26
1/8" x 2"	75	3 x 50	23
3/16" x 3/4"	135	5 x 19	41
3/16" x 1"	100	5 x 25	30
3/16" x 1 1/4"	85	5 x 31	26
3/16" x 1 1/2"	70	5 x 38	21
3/16" x 1 3/4"	60	5 x 44	18
3/16" x 2"	50	5 x 50	15
1/4" x 1"	80	6 x 25	24
1/4" x 1 1/4"	60	6 x 31	18
1/4" x 1 1/2"	50	6 x 44	14
1/4" x 1 3/4"	45	6 x 50	12
1/4" x 2"	40	9 x 25	15

16. SAFETY

This product is for industrial use only. Use only in well-ventilated areas. Practice all normal jobsite safety precautions (clear work area, etc). Refer to SDS and installation instructions for more information.

17. FOOD RELATED FACILITIES

C² Joint Fill is acceptable for use in facilities regulated by USDA/FDA/CFIA. Contact us to discuss project details if contamination is a concern.

18. MATERIAL WARRANTY

WARRANTY: The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application of our products, nor anticipate every variation encountered in masonry surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose. Crete Colors International warrants this product to be free from defects. Where permitted by law, Crete Colors makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of merchantability or fitness for particular purpose. The purchaser shall be responsible to make his own tests to determine the suitability of this product for his particular purpose. Crete Colors International's liability shall be limited in all events to supplying sufficient product to re-treat the specific areas to which defective product has been applied. Acceptance and use of this product absolves Crete Colors from any other liability, from whatever source, including liability for incidental, consequential or resultant damages whether due to breach of warranty, negligence or strict liability. This warranty may not be modified or extended by representatives of Crete Colors, its distributors or dealers.

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