

CCS™ GROUT, CONTROL JOINT FLEXIBLE EPOXY GROUT FOR CONTROL JOINTS AND SAW CUTS

CCS Grout, Control Joint is a two-component, fast curing, flexible, epoxy grout for filling control joints, wire slots and other saw cuts in concrete and asphalt. The cured product has excellent impact and abrasion resistance and is resistant to deicing chemicals and most automotive and aircraft fluids. Its low water absorption and high dielectric strength make it ideally suited for embedding wire and traffic detection loops in concrete and asphalt pavements and for filling properly prepared saw cut control joints in interior concrete slabs for industrial and warehouse floor applications. Conforms to ACI 302.1R guidelines for floors and slabs. Can easily be hand mixed or applied by pump. Control Joint also may be used for bonding precast concrete curbing to concrete and asphalt substrates.

Features

- Convenient 1:1, by vol. mix ratio
- Fast cure for short downtime
- High viscosity for single pour filling
- Does not embrittle; stays tough and flexible
- Resists road, auto and aircraft chemicals
- Environmentally safe- No VOC solvents

Limitations: Substrates must be dry. Minimum installation and cure temperature is 40 °F. NOT AN ELASTOMER- do not use in: joints subject to movement or flexing, expansion joints or exterior joints. Do not add solvents or otherwise thin this material.

Packaging & Colors: Standard package sizes of Part A + Part B are 2, 10 and 100 gallons. Standard color is Concrete gray and black; custom colors available.

Shelf Life: Three years minimum in unopened, original containers when stored between 60 and 90 °F in a dry place away from sunlight. Remixing of components may be required upon long-term storage.

Chemical Resistance: CCS Control Joint is resistant to a wide range of commonly used aircraft and automotive chemicals including jet fuels, gasoline, hydraulic fluids, anti-freeze and battery acid. Ongoing exposure to gasohol and heavy-duty brake fluid (polyether glycol based lubricants) is not recommended. Performance is a function of the specific chemical and concentration, ambient and solution temperatures, exposure times and housekeeping procedures. For information on specific chemicals and exposure conditions, contact a ChemCo Systems, Inc., technical representative.

Surface Preparation: Substrate surfaces must be dry, sound and free of all bond-inhibiting substances. Prepare surfaces in accordance with ASTM D 4259 or ACI 503R and ChemCo Systems' specific recommendations. Cleaned concrete surfaces should have a minimum strength of 250 psi in direct tension. Cleaned asphalt surfaces should have a minimum strength of 100 psi at 73 ± 4 F. in direct tension. Steel surfaces should be cleaned to "white metal" according to SSPC SP 5.

Mixing: CCS Control Joint is a two-component system. The resin to hardener (Part A:Part B) mix ratio is 1:1, by volume. Read all material safety data (MSDS) information before handling the product. Wear safety glasses and rubber gloves when handling the materials. Premix the individual components before drawing from bulk packaging. Transfer appropriate quantities of Part A and Part B into a mixing container. Use quantities that can be applied before the potlife of the mixed material expires. Blend thoroughly using a Jiffy mixer blade attached to a low speed (350 -750 rpm) electric or pneumatic drill. Proper mixing will take 2-3 minutes.

Installing: For filling control joints, wire slots and saw cuts, transfer mixed material to a pour can with a spout sized for the joint to be filled. Fill the joint in a single direction. For a filled surface flush with the surrounding substrate, overfill slightly the joint until a crown of material is formed. Following cure, excess material (high spots) may be removed by warming with a hot air stream (heat gun) and cutting with a sharp blade. For faster cure, the components can be pre-warmed in their individual containers to 125 °F—in this fashion a joint may possibly be re-opened to traffic in an hour or less.

Approximate Yield

Joint Dimensions, inches		Linear Feet/Gallon
Width	Depth	
1/2	1/4	154
1/2	3/8	102
3/4	3/8	68
3/4	1/2	51
1	3/4	25

Clean up: Excess mixed product is best removed from the work area and tools before it hardens. Use of rags and solvents such as acetone or heavy-duty detergents facilitate cleaning. Cured product may be removed from tools by soaking in an epoxy stripper.

TYPICAL PROPERTIES ⁽¹⁾

PROPERTY ⁽²⁾		TEST METHOD	VALUE
Mix Ratio, A:B,	by vol		1:1
	by wt		100:79
Color:	Part A	VISUAL	gray or black
	Part B		Clear amber
	Mixed		gray or black
Weight per Gallon, lb:	Part A	ASTM D 1475	9.8
	Part B		7.8
	Mixed		8.8
Viscosity, cp	Part A	ASTM D 2393	4100
	Part B		4400
	Mixed		4300
Gel Time, 200 g, minutes		ASTM D 2471	15
Tensile Strength, psi		ASTM D 638	1200 (3)
Elongation at Break, %		ASTM D 638	90 (3)
Tear Resistance, lbf/in		ASTM D 624	110 (3)

- (1) The properties listed are typical and descriptive of the product and should not be used for specification purposes. For specification preparation, reference the ChemCo Systems, Inc., product guideline specification.
- (2) Cure schedule, 7 days at 73 ± 4 F and test temperature, 73 ± 4 F.
- (3) Tested at crosshead speed of 2.0 inches/minute.

Handling and Toxicity: This bulletin does not accompany the product when sold. For hazard warnings, safe handling and first aid instructions. CAREFULLY READ THE MATERIAL SAFETY DATA SHEETS AND CONTAINER WARNING LABELS.

Part A: Liquid epoxy resin, HMIS Health Hazard Rating- 2 (Moderate Hazard). Warning! Causes eye and skin irritation. May cause allergic skin reaction. Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid prolonged or repeated contact with skin.

Part B: Liquid epoxy hardener, HMIS Health Hazard Rating- 2 (Moderate Hazard). Contains alkaline amines. Warning! Causes eye and skin irritation. May cause allergic skin and respiratory reaction. Combustible, corrosive. Do not get in eyes or skin or on clothing. Avoid breathing vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and open flame.

DISCLAIMER: NO EXPRESS WARRANTY IS MADE WITH RESPECT TO THE RESULTS OF ANY USE OF THIS PRODUCT. NO IMPLIED WARRANTIES, INCLUDING AND NOT LIMITED TO AN IMPLIED WARRANTY OF MERCHANTABILITY OR AN IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE MADE WITH RESPECT TO THIS PRODUCT. NO LIABILITIES FOR PERSONAL INJURY, LOSS OR DAMAGE RESULTING FROM THE USE OF THIS PRODUCT IS ASSUMED. CHEMCO SYSTEMS, INC., RESERVES THE RIGHT TO ALTER OR DISCONTINUE THE PRODUCT DESCRIBED HEREIN AT ANY TIME AND WITHOUT PRIOR NOTICE.

CCS™ is a trade name of ChemCo Systems, Inc.