TILING 09 30 00 GROUT

# CEG-LITE™ 100% SOLIDS COMMERCIAL EPOXY GROUT

## 1. Product Name

CEG-Lite™ 100% Solids Commercial Epoxy Grout

#### 2. Manufacturer

Custom Building Products 13001 Seal Beach Blvd. Seal Beach, CA 90740-2757 Customer Support: 800-272-8786 Technical Services: 800-282-8786

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# 3. Product Description

## **BENEFITS**

- 2-Part 100% Solids Epoxy
- No shrinkage
- · Color consistent, stain and chemical resistant
- · Easy to spread and clean-up
- No additive needed for critical grouting applications
- Contains recycled LEED® contributing materials

#### **USES**

- CEG-Lite can be used as both a grout and as a setting mortar
- Use with virtually any tile vitreous, semi-vitreous or impervious tile including ceramic, mosaic, quarry, pavers, cement, porcelain, glass, brick, mini-brick, precast terrazzo and natural stone, including green marble
- Use to fill joint widths from 1/16" to 1/2" (1.6 13 mm)
- It may be used for both floor or wall installations after tiles have been properly embedded
- Interior and exterior applications

# AREAS OF USE

- Excellent for use in applications in industrial plants, particularly chemical and food processing plants such as dairies, breweries, bottling plants and textile and metal finishing plants, where the use of acids, alkalis, solvents, strong detergents and other chemicals would normally cause erosion and damage to the setting beds and grout joints
- Hospitals, restaurants, food preparation areas and similar installations where clinical sanitation is maintained by harsh cleaning methods
- Countertops, backsplashes, tub and shower areas, sunken tile tubs and swimming pools — that are continually wet
- Plumb and true masonry, concrete, cured Portland cement mortar beds
- Bonds directly to brick, ceramic tile, cementitious back units, steel, glass and fiberglass



# LIMITATIONS

- CEG-Lite should not be used in an environment with temperature requirements above 250° F (121° C) for any extended period of time.
- When used to install tile in an area that will be continually wet (e.g. swimming pools, gang showers, etc.), it is recommended that the complete installation be cured 14 days prior to full submersion with chemically treated water.
- Epoxy, epoxy residue, or wash water will discolor painted or anodized surfaces upon contact. Protect these surfaces from exposure.
- Vertical grout joint width should not exceed 1/2" (13 mm).
- CEG-Lite should be tested for possible staining or slight color changes when used with porous, absorptive, textured tile and stone units such as rough textured ceramic tile, natural stone or marble.
- All epoxies are temperature sensitive. CEG-Lite is easiest to apply when temperatures are between 70° F and 85° F (21° C and 29° C). Lower temperatures will cause the epoxy to become stiff and more difficult to work and will extend initial set. Higher temperatures will cause the epoxy to become more fluid and will accelerate the set.
- With all epoxies, a "crystallization" effect can occur when
  the liquid gets below 45° F (7° C) and/or has experienced
  multiple cycles of high and low temperature changes. If
  material is hard, place the sealed container (with the lid
  on), in warm tap water at approximately 120° F (49° C)
  for 10 to 20 minutes, and when re-liquefied, let the
  material return to room temperature before mixing.
- Not recommended in some manufacturing facilities where heavy solvents are used. Consult Technical Services on questionable installations.
- Colors may be slightly different than shown on color samples. When color considerations are critical, a mock-up should be constructed prior to final selection and application.
- The use of non-rinse, enzyme-based cleaners is not recommended because they will break down the organic materials in epoxy grout, causing permanent damage.

#### **COVERAGE AS A GROUT**

Coverage will vary depending on tile size and joint width.

Coverages are approximate and may be reduced by

10 – 20%+ based on waste, spillage and project conditions.

SQUARE FOOT COVERAGE PER 2 GALLON UNIT (SQUARE METER PER 7.6 L)											
TILE SIZE		JOINT WIDTH									
		1/16"	(1.5 mm)	1/8"	(3 mm)	1/4"	(6 mm)	3/8"	(9.5 mm)	1/2"	(13 mm)
1" x 1" x 1/4"	(25 x 25 x 4.5 mm)	106	(9.9)	55	(5.1)	30	(2.7)	21	(2.0)	17	(1.6)
2" x 2" x 1/4"	(50 x 50 x 6 mm)	209	(19.4)	106	(9.9)	55	(5.1)	38	(3.5)	30	(2.7)
4 1/4" x 4 1/4" x 1/4"	(106 x 106 x 6 mm)	440	(40.9)	222	(20.6)	113	(10.5)	76	(7.1)	58	(5.4)
6" x 6" x 1/4"	(150 x 150 x 6 mm)	619	(57.6)	311	(28.9)	158	(14.6)	106	(9.9)	81	(7.5)
8" x 8" x 3/8"	(200 x 200 x 9.5 mm)	550	(51.1)	276	(25.7)	139	(12.9)	94	(8.7)	71	(6.6)
12" x 12" x 3/8"	(300 x 300 x 9.5 mm)	824	(76.6)	413	(38.4)	208	(19.3)	139	(12.9)	105	(9.8)
16" x 16" x 3/8"	(400 x 400 x 9.5 mm)	1098	(102)	550	(51.1)	276	(25.7)	185	(17.2)	139	(12.9)

## COVERAGE AS MORTAR

SQUARE FOOT COVERAGE PER 2 GALLON UNIT (SQUARE METER PER 7.6 L)				
TROWEL SIZE	COVERAGE			
1/4" x 1/4" x 1/4" Square-Notch (6 x 6 x 6 mm)	50 – 60 sq. ft. (4.6 – 5.6 M²)			
3/16" x 5/32" V-Notch (5 x 4 mm)	80 – 90 sq. ft. 7.4 – 8.4 M²)			

## 4. Technical Data

## APPLICABLE STANDARDS

Detailed installation procedures and use of epoxy mortars may be found in the TCA Handbook under F0113, F-114, F-115, F-116, F-125, F-128, F-143, F-131, F-132, F-134, F-135, F-200, F-205, TR-711 and TR-712 and in addition, in ANSI A108.6.

Exceeds ANSI A118.3 specifications. Conforms to requirements for chemical-resistant, water cleanable tile setting and grouting epoxy found in ANSI A108.6 and ANSI A118.3. Physical Properties:

	TYPICAL VALUES
Water Cleanable @ 75°F (24°C)	80 minutes
Pot Life @ 75°F (24°C)	60 minutes
Initial Set @ 75°F (24°C) (ASTM C308)	2 hours
Final Set @ 75°F (24°C)	18 hours
Final Cure @ 75°F (24°C)	7 days
Compressive Strength @ 7 Days (ASTM C579)	>3,500 psi
Tensile Strength @ 7 Days (ASTM C307)	>1,000 psi
Bond Strength Vitreous Tile @ 14 Days	>1,000 psi
Shrinkage @ 7 Days (ASTM C531)	<0.25%
SAG Vertical Joint	None
Thermal Shock	>500 psi

# 5. Installation

# PREPATORY WORK

# General Surface Preparation:

All surfaces on which tiles are to be set must be dry, structurally sound, and not subject to temperatures below 65° F (18° C) or above 95° F (35° C). Surfaces must be dry and free of all grease, oil, dirt, dust, curing compounds, sealers, coating, efflorescence, old adhesive residues, gypsum based underlayments and any other foreign matter.

## Cementitious Surfaces:

Cleaning may be accomplished via mechanical abrasion, scraping or chipping. Surfaces may be cleaned with muriatic acid if thoroughly flushed and neutralized. (Use proper precautions.) Smooth, steel troweled concrete floors must be roughened to ensure a superior bond. Dry porous concrete should not be pre-dampened with water before applying CEG-Lite mortar. Instead, skim-coat a thin layer of CEG-Lite mortar first, then apply sufficient CEG-Lite mortar with the appropriate notch trowel.

## Plywood Substrates:

All wood flooring, when placed over conventional floor joist or other systems, should be of a design and thickness so as to meet ANSI A108.01. Further, the flooring to receive the CEG-Lite mortar should be exterior grade plywood only, secured with screw-type nails and glued where possible. A gap of 1/8" (3 mm) should be left between sheets of plywood and between the plywood edges and all materials which they abut to allow for expansion. These gaps should remain empty when the installation is complete. Do not force epoxy between edges of plywood sheets. Follow TCNA EJ-171 for expansion joint details. In addition, all wooden surfaces must be for interior use only and protected from exposure to water.

# Miscellaneous Substrates:

Other substrates like existing ceramic tile, steel, glass and fiberglass must all be free of all oils, coatings, dust and moisture. In addition, these surfaces should be roughened to ensure a good bond. It is also absolutely essential that the existing surface be structurally sound and firmly attached to the supporting structure.

Construction/Expansion/Control/Isolation Joints: Follow installation procedures as outlined in TCNA EJ-171.

# **METHODS**

# Mixing

Open Part B and stir thoroughly to eliminate the effects of settling due to shipping. Add the entire contents of the pigment Part A to Part B and stir to produce a homogeneous consistency, eliminating any color streaks from appearing in the mixed unit. Do not mix partial units. Make sure to scrape bottom and sides of container during mixing. NOTE: If using small 1 gallon unit, mix with 1 unit of color. If using large 2 gallon unit, mix with 2 units of color. If a power mixer is used, it must be 300 RPM or less to avoid entrapping air bubbles which cause pinholes in the grout. Do not overmix as this will cause the epoxy to flash set.

## Application for Grouting

Tile must be firmly attached to a sound substrate with the mortar adequately cured per the mortar manufacturer's recommended time, before grouting. Remove all spacers. Grout joints should be free of all loose debris, contaminants and excess mortar.

Mix material as previously described. Remove all grout from container and spread out in piles over the surface to be grouted as soon as mixing is completed. This will extend working time. When grouting walls, place epoxy on a mortarboard placed on the floor. Grout vertical surfaces as soon as possible after mixing. Apply grout using a hard epoxy rubber float, filling all joints full and even with surface of tile.

It is important to achieve 100% fill coverage with no voids in the joints to prevent pin holes and slumping of the epoxy grout. Remove excess epoxy by holding the grout float at a 90° angle and pulling the float diagonally across the grout joints using it like a squeegee. Removing as much epoxy as possible will make final cleaning easier. Avoid gouging joints. Do not allow epoxy to set on face of tile. Apply liberal amounts of clean, warm water to the grouted area. Adding a few drops (maximum) of Dawn® dishwashing liquid to the water will aid in cleanup. Using a grout sponge and as little pressure as possible, work in a circular motion across tiles to loosen epoxy film and to finish the joints smoothly. Change rinse water (and sponge if build-up occurs) frequently to aid in clean-up and minimize epoxy residue left behind. As a final step, clean film from tile by dragging a damp, clean microfiber towel flatly across the tiles.

NOTE: On porous or rough tiles, sealing with a grout release may be necessary to prevent staining. Try a test patch to be sure. Epoxy and epoxy wash residue should not be allowed to dry on painted, anodized and thin metal-plated surfaces. Clean uncured materials from these surfaces immediately with soap and water.

# Application for Use as a Mortar

Spread mortar with flat side of trowel onto substrate. Then, reapply additional mortar to a depth sufficient to be notched with a suitable trowel. Troweling should leave enough mortar to give 100% contact with back of the tile and a leave a mortar bed of about 1/16" (1.6 mm) for ceramic mosaic tile to 1/8" (3 mm) for quarry tile. Temperature affects set time; therefore, it is advisable to occasionally remove a tile to be sure mortar has not skinned over and sufficient transfer is being made. Approximate tack time is 30 minutes at 75° F (24° C). Pot life is approximately 45 minutes at 75° F (24° C). Should epoxy mortar get on surface of tile, it will be necessary to remove it with a damp sponge before it cures. Epoxy residue should not be allowed to cure on unintended surfaces (e.g. painted, wall papered, carpeted, wood, concrete, masonry and stucco surfaces).

# Curing

Available for light traffic after 24 hours and for heavy traffic after 72 hours. Protect from harsh industrial cleaners for seven days and from aggressive chemicals for 14 days. Initial maintenance for the first seven days should be using clean water only. All grouting and cleaning should be completed within 80 minutes. If haze is present the day following grouting, contact Technical Services or refer to the website for instructions regarding removal of cured or hard epoxy.

# Clean-up

Clean tools and hands with water before material dries.

## Storage

Keep from freezing.

## CAUTION

May irritate eyes. May irritate skin Do not swallow. Do not get in eyes. Do not get on skin or clothing. Do not breath fumes. KEEP OUT OF REACH OF CHILDREN. Wear Safety glasses and chemical resistant gloves.

First Aid Treatment: If swallowed, call a poison control center or doctor immediately. Do not induce vomiting. If in eyes, rinse with water 15 minutes. If on skin, rinse well with water.

# 6. Availability & Cost

Contact the manufacturer or visit the www.custombuildingproducts.com website for information about product cost and availability.

Unit Consists of — Part A: One 1.5 lb. (.68 kg) container of pigmented liquid epoxy hardener; PLUS Part B: One 18.1 ll

,	pigmented liquid epoxy hardener; PLUS Part B: One 18.1 lb (8.2 kg) or 9.05 lb (4.1) Part B liquid epoxy resin combined with aggregates. Note: Order 1 unit of color for 1 gallon base. Order 2 units of color for 2 gallon base.							
	ITEM CODE SIZE GROUT COLOR PACKAGE							
	PART A							
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ITEM CODE	SIZE	GROUT COLOR	PACKAGE
PART A			
LWCEG09A	1.5 Lbs. (.68 kg)	#09 Natural Gray	Tub
LWCEG10A	1.5 Lbs. (.68 kg)	#10 Antique White	Tub
LWCEG19A	1.5 Lbs. (.68 kg)	#19 Pewter	Tub
LWCEG45A	1.5 Lbs. (.68 kg)	#45 Summer Wheat	Tub
LWCEG52A	1.5 Lbs. (.68 kg)	#52 Tobacco Brown	Tub
LWCEG60A	1.5 Lbs. (.68 kg)	#60 Charcoal	Tub
LWCEG96A	1.5 Lbs. (.68 kg)	#96 Quarry Red Clay	Tub
LWCEG101A	1.5 Lbs. (.68 kg)	#101 Quartz	Tub
LWCEG105A	1.5 Lbs. (.68 kg)	#105 Earth	Tub
LWCEG122A	1.5 Lbs. (.68 kg)	#122 Linen	Tub
LWCEG145A	1.5 Lbs. (.68 kg)	#145 Light Smoke	Tub
LWCEG165A	1.5 Lbs. (.68 kg)	#165 Delorean Gray	Tub
LWCEG180A	1.5 Lbs. (.68 kg)	#180 Sandstone	Tub
LWCEG185A	1.5 Lbs. (.68 kg)	#185 New Taupe	Tub
LWCEG380A	1.5 Lbs. (.68 kg)	#380 Haystack	Tub
LWCEG381A	1.5 Lbs. (.68 kg)	#381 Bright White	Tub
LWCEG382A	1.5 Lbs. (.68 kg)	#382 Bone	Tub
LWCEG386A	1.5 Lbs. (.68 kg)	#386 Oyster Gray	Tub
PART B LWCEGB1	1 Gallon U 9.05 Lbs.	Pail	
PART B LWCEGB2	2 Gallon U 18.1 Lbs.	Pail	

Kit Consists of — Part A: One 6 fl. oz. (177 ml) container of pigmented liquid epoxy hardener; PLUS Part B: One 32 oz. (.95 L) Part B liquid epoxy resin combined with aggregates.

ITEM CODE	SIZE	GROUT COLOR	PACKAGE
LWCEG09K	.29 Lbs. (1.1) L	#09 Natural Gray	Tub
LWCEG60K	.29 Lbs. (1.1) L	#60 Charcoal	Tub
LWCEG105K	.29 Lbs. (1.1) L	#105 Earth	Tub
LWCEG122K	.29 Lbs. (1.1) L	#122 Linen	Tub
LWCEG165K	.29 Lbs. (1.1) L	#165 Delorean Gray	Tub
LWCEG380K	.29 Lbs. (1.1) L	#380 Haystack	Tub
LWCEG381K	.29 Lbs. (1.1) L	#381 Bright White	Tub
LWCEG382K	.29 Lbs. (1.1) L	#382 Bone	Tub

# 7. Limited Product Warranty

Custom Building Products warrants to the original consumer purchaser that its product shall be free from defects in material and workmanship under normal and proper usage for a period of one year following the date of original purchase. Sole liability under this warranty shall be limited to the replacement of the product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. This warranty will not extend to any product modified in any way or not used in accordance with the manufacturer's printed instructions. Custom Building Products makes no other warranties, either express or implied. This warranty gives you specific legal rights, and you may have other rights that vary from state to state. For details and complete warranty information, visit the Custom Building Products website: www.custombuildingproducts.com.

# 8. Maintenance

For routine cleaning, use TileLab® Grout & Tile Cleaner or TileLab Heavy-Duty Cleaner & Stipper.

# 9. Technical Services

For technical assistance contact Custom Building Products or visit www.custombuildingproducts.com.

# 10. Filing Systems

Additional product information is available from the manufacturer upon request.