CHEM-BUTTON

Two-component Fast Setting Epoxy Adhesive Gel for Reflectors & Lane Markers

PRODUCT DESCRIPTION

CHEM-BUTTON is a two-component solvent-free and fast setting epoxy adhesive. Both resin and hardener components are formulated and pigmented to produce a uniform grey color paste. The product meets ASTM C 811, Type I, Grade 3, class B and C.

FIELDS OF APPLICATION

CHEM-BUTTON is designed to be used as an epoxy adhesive for fixing raised traffic reflectors, fixing flat studs or studs with lugs, bonding lane markers, temporary bonding of rubber warning cones, etc. CHEM-BUTTON is also used as dowel setting adhesive in horizontal applications. The product may be extensively used in the fields of:

- ☐ Highways and roads maintenance.
- ☐ Bridges and tunnels maintenance.
- ☐ Airports and airbase maintenance.
- ☐ Bonding of wood, concrete, steel, glass, asphalt and most construction materials.

PRODUCT FEATURES

- ☐ Two component, ready-to-use adhesive.
- ☐ Fast setting, less down time for traffic.
- ☐ Excellent adhesion to most commonly found construction material.
- ☐ High mechanical strength.
- ☐ Easy mixing 1:1 by volume and easy application.

PACKAGING

Product	Packaging
CHEM-BUTTON	2 Gallon (7.57 Liters) Unit
	10 (37.85 Liters) Gallon Unit

TECHNICAL DATA

Technical Data for Unmixed Parts

Technical Data @ 25°C	Resin - Part A	Hardener - Part B
Solids, %	100%	100%
Color	White	Black
Density, Lb/Gal (Kg/L)	12.9 (1.55)	12.5 (1.50)
Shelf life	Two Years	Two Years
Mix ratio (A:B)	1:1 by volume	

Technical Data for Mixed Parts

Properties @t 25°C	Values	ASTM Method
Density, Lb/Gal (Kg/L)	12.6 (1.52	D-1475
Color	Grey	-
Pot life @ 60 grams, minutes	12	N/A
Shore Hardness	77-D	D-2240
Flexural strength, Psi (MPa)	2690 (18.3)	D-790
Compressive strength, Psi (MPa)	5070 (34.5)	D-695
Bond Strength to steel, Psi (MPa)	320 (2.2)	C-321
Bond strength, (24 hours)	1220 (8.3)	C-881
Water absorption @ 24 hours, %	0.035	D-570
Elongation, %	33	D-522

APPLICATION DATA

Limitations: applications at ambient temperatures below 40°F (4°C) is not recommended. Exposure to temperatures exceeding 155°F (68.5°C) for prolonged period is not recommended.

Pre-treatment of Substrate:

Concrete Surfaces: The substrate must be clean, dry, free from grease or oil, etc. Laitance and loose particles must be removed by either sandblasting or mechanical grinding. Holes must be cleaned using oil free compressed air.

Steel Surfaces: All steel surfaces to be bonded with CHEM-BUTTON must be clean, dry, free from rust, oil, grease, etc. Shot blasted to Swedish Standard SA 2 ½ is preferable to achieve a white metal finish prior to application.

Mixing: stir each component separately. Mix one part A and one part B by volume into a clean mixing container. Mix the epoxy with a slow speed electric drill with a mixing paddle attachment. Carefully scrape the sides and bottom of the pail during mixing. Blend for 3 minutes.

Note: large batches of epoxy will cure much faster than small batches. Mixed epoxy will cure much faster in hot weather than in cold weather.

Application: the mixed CHEM-BUTTON can be applied manually. Should there be a necessity of using automatic metering equipment, the un-mixed CHEM-BUTTON should be dosed into the automatic metering equipment -which ejects part A and part B in equal volumes- fitted with a static mixer.

Fill 2/3 the hole with CHEM-BUTTON mixture ensuring no air entrapment. Insert the stud lug in a twisting motion. Extra adhesive must be applied on the surface for fixing the stud onto the surface.

Dowel Setting Application: application can be made by mechanical, pneumatic dosage equipment, caulking guns or by hand. Forces the mixture into drilled hole then insert the steel bar with a twisting motion to ensure intimate contact and a good bond without air entrapment. Lightly tap the anchor/dowel to ensure complete embedment. Wipe off any excess material from the surface and finish to a neat smooth surface.

Bonding of any similar/dissimilar material: Ensure both surfaces to bond are clean and free of dust, oil, grease, etc. Roughen up the surfaces for good mechanical keying. Apply in thin layer CHEM-BUTTON on both surfaces. Pull them together and hold into position undisturbed for 6 – 8 hours.

Curing: The gel time of CHEM-BUTTON at 77ºF (25ºC) is approximately 2–3 hours. Traffic may be opened in 4 – 6 hours after mixing and placing (at elevated temperature it would be sooner).

CLEANING

Remove uncured CHEM-BUTTON from tools and equipment with a suitable solvent such as Xylene or Toluene immediately after use. Cured material may only be removed mechanically.

STORAGE

Store CHEM-BUTTON in a dry area between 50ºF (10ºC) and 77ºF (25ºC). Protect from direct sunlight. Shelf Life is two years in unopened container.

SAFETY PRECAUTIONS

After full curing the product is physiologically harmless. Keep the resin and hardener away the eyes, mouth and skin. Do not inhale vapors. Uncured mixture can cause irritation of the skin. The best precaution is to wear safety protective gloves, overall, mask and goggles while working. Skin contamination should be immediately cleaned with soap and plenty of water. The use of solvents should be avoided. If resin or hardener splashes into the eyes, wash immediately with running water. A Doctor must be visited in all cases.

TECHNICAL ASSISTANCE SAFETY PRECAUTIONS

Please contact International Chem-Crete Corporation for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete Inc. warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

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