



CHEM-VERSATILE

Structural and Multi-Purpose Epoxy Adhesive

PRODUCT DESCRIPTION

CHEM-VERSATILE is a two-component solvent-free epoxy resin-based structural adhesive in buttery consistency. Both components are pigmented and formulated to a thixotropic consistency. CHEM-VERSATILE meets the requirements of ASTM C881, Type VII, Grade 3, Class B & C.

FIELDS OF APPLICATION

CHEM-VERSATILE is extensively used in the following applications:

- Used for bonding adhesive packers and sealing cracks as part of a crack injection system
- Joining concrete-to-concrete, steel to concrete elements
- Filling slip bricks to concrete
- Fastening bolts into walls
- As a gap filling adhesive
- Filling and sealing bolt pockets
- Bedding Tiles

PRODUCT FEATURES

- Ready to use work pack ensures correct mixing.
- Thixotropic consistency and do not sag which allows for vertical and overhead application
- Excellent adhesion
- Non-slump
- Excellent mechanical properties
- Easy to use, trowels to a smooth finish

PACKAGING

Product	Packaging
CHEM-VERSATILE	0.50 GAL (1.892 Liters) UNIT Part A: 0.25 Gal Can, Part B: 0.25 Gal Can
	2 GAL (7.57 Liters) UNIT Part A: 1 Gal Can, Part B: 1 Gal Can

TECHNICAL DATA

Technical Data for Unmixed Parts

Property @ 25°C (77°F)	Resin - Part A	Hardener - Part B	Test Method
Solids	100 %	100 %	-
Color*	White	Black	-
Density, Lb/Gal (Kg/L)	< 13 (1.57)	< 12.7 (1.53)	ASTM D-1475
Consistency	Thixotropic	Thixotropic	-
Mixing Ratio A: B	1: 1 By Volume		-
Shelf Life	2 years	2 years	-

Technical Data for Mixed Parts

Property (Mixed A & B)	Value @ 25°C (77°C)	Test Method
Mixed Density, Lb/Gal (kg/L)	< 12.90 (1.55)	ASTM D1475
Consistency	Thixotropic	-
Mixed Color	Grey	-
Gel Time @ 60 grams, minute	75	ASTM D2471
Pot Life @ 0.5 Gal (1.9 Liter), minute	32	-
Shore Hardness @ 3 Days, D	57	ASTM D-2240
Bond Strength to Concrete @ 7 Days	Concrete Failure	ASTM C-882
Bond Strength to Steel @ 7 Days, Psi (MPa)	608 (4.19)	ASTM C-321
Water Absorption 24 hrs, %	0.038	ASTM D-570
Elongation (Average), %	11	ASTM D-522, Method A
Heat Deflection temperature @ 7 Days, °F (°C)	176 (80)	ASTM D648
Final Cure, day	7	-

APPLICATION DATA

Limitations: applications at ambient temperatures below 41°F (5°C) is not recommended. Exposure to temperatures exceeding 149°F (65°C) for prolonged period is not recommended.

Coverage: 0.50 Gallon of CHEM-VERSATILE will cover approximately 20.37 ft² at 40 mils layer thickness (1.892 Liters of CHEM-VERSATILE will cover approximately 1.892 m² at 1 mm layer thickness).

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.

Steel Surfaces: all steel surfaces to be bonded with CHEM-VERSATILE must be clean, dry, free from rust, oil, grease, etc. Shot blasting to Swedish Standard SA 2½ is preferable to achieve a white metal.

Mixing: the pack of 0.50 Gallon (1.892 Liter) has been designed to be manually mixed for ease of use on site. If more than one pack are to be mixed at a time, a drill fitted with a mixing paddle (maximum 400 rpm) are recommended for mechanical mixing until achieving homogenous uniform color mixture.

Application:

As a Crack Sealing Compound: use CHEM-VERSATILE to fix the adhesive packers and seal the length of the crack using spatula or putty knife on strips minimum 2 inches (50 mm)

wide and 2 mm thick. Allow the crack sealing compound CHEM-VERSATILE to cure for minimum 8 hours prior to injection.

0.5 Gallon of CHEM-VERSATILE will cover 20.37 yards at 2 inches width and 80 mils thickness (1.892 Liters of CHEM-VERSATILE will cover 18.92 meters at 2 cm width and 2 millimeters thickness)

As a Structural Adhesive: CHEM-VERSATILE is used for bonding concrete to concrete, steel plates to concrete and steel to steel. Apply CHEM-VERSATILE using a toothed spatula. Depth and width of the teeth should be chosen in a way that the resulting adhesion joint would be 1 mm to maximum 5 mm in width. Subsequently, press both the elements to be joined and hold together for at least 24 hrs.

CLEANING

Remove uncured CHEM-VERSATILE from tools and equipment with suitable solvents such as Xylene, Toluene or CHEM-CRETE BLENDED SOLVENT immediately after use. Cured material may only be removed mechanically.

STORAGE

The product can be stored for minimum of twelve months at temperature from 50°F to 95°F (10°C to 35°C) in the unopened original packaging. Protect from direct sunlight.

SAFETY PRECAUTIONS

After hardening thoroughly, CHEM-VERSATILE is physiologically harmless. Keep the resin and hardener away from the eyes mouth and skin. Do not breathe in the vapors. The uncured mixture can cause irritation of the skin. For best protection, wear rubber or plastic gloves. In case of contamination, wipe

away resin or hardener immediately from the skin using paper towels and then wash with soap and water or hand cleaning detergent. Empty resin and hardener cans must be disposed according to local city code or regulations. Under no circumstances empty cans should be used to store food or drink even if they have been thoroughly cleaned. Follow all cautionary direction as printed on container's labels.

TECHNICAL ASSISTANCE

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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