

EPOXY PORTLAND CEMENT BONDING AGENT STEEL REINFORCEMENT PROTECTION

DESCRIPTION:

Chem Epochem is a 3 part bonding agent composed of a specialty water based epoxy and selected cementitious compounds. Chem Epochem provides an extended open time allowing for placement of concrete toppings and repair mortars upto 24 hours later. The product also provides significant protection against steel reinforcement corrosion when applied to properly prepared rebar.

PRIMARY APPLICATIONS:

- Bonding agent for floor toppings and concrete repair.
- Bond coat for concrete repair mortars.
- Corrosion protection for steel reinforcement
- Exterior and interior concrete
- Parking and bridge structures
- Marine structures
- Retaining and parapet walls

FEATURES / BENEFITS

- Excellent adhesion to concrete and steel
- Extended open time allows flexibility in topping placement.
- Bonding agent plus corrosion protection-one product does both
- Non-vapor barrier for slab on grade applications.
- Non-flammable and V.O.C. compliant for increased safety.

TECHNICAL INFORMATION:

Typical Engineering Data

Consistency	: Wet Slurry
Pot Life	: 90 minutes
Open time @ 21oC	: 24 hour
Application thickness	: 0.5 mm
Tensile bond strength	: greater than concrete tensile Strength
Curing mechanism	: Cementitious hydration Crosslinked epoxy
Shelf life	: 1 year

PACKAGING:

Chem Epochem is available in 2.5/kg pack. A pack consists of Part A (white base), Part B (green hardener).

COVERAGE:

Coverage Rates 3-3.5 m²/Kg.

The concrete surface texture greatly affects coverage rates and final appearance. Badly porous surface may reduce coverage to less than 3-3.5 m²/Kg.

DIRECTIONS FOR USE:

Surface Preparation – Bonding-New concrete must be clean and well textured prior to use of Chem Epochem. Remove all curing compounds and form release agents. Old concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed.

The surface must be prepared mechanically using a scabbier, bush-hammer, shot-blast or other suitable equipment which will give a surface profile of a minimum 1/8" (3 mm), exposing the coarse aggregate of the concrete. The final step in cleaning should be the complete removal of all residues.

The concrete substrate must be thoroughly prewetted prior to the application of Chem Epochem.

Corrosion Protection. - Steel reinforcement. Should be sand blasted to white metal.

Mixing - add the entire container of Part B to all of Part A. Mix with mechanical (drill) mixer for 2-3 minutes until uniform.

PLACEMENT:

Bonding - concrete substrate must be thoroughly prewetted but free of standing water. Chem Epochem is applied by stiff bristle broom or "hopper gun" (pattern Pistol) at an even coverage rate of 1.7 m²/liter. Final film thickness will be 0.5 mm Fresh concrete or repair mortar may be placed on Chem Epochem while it is wet or after it dries, up to 24 hours after placement.

Corrosion Protection - for maximum protection of steel reinforcement, apply Chem Epochem in two coats, with each coat placed at 3.5 m²/liter. After the first coat is placed, allow to dry for 2 - 3 hours before the second coat is placed. Total film thickness will be 0.5 mm. Care should be taken to ensure the steel is completely coated. Fresh concrete or mortar may be placed while the Chem Epochem is still wet, or after it dries, up to 24 hours after placement.

Shotcrete - Wait a minimum of 8 hours after application of Chem Epochem before the shotcrete is applied.

CLEAN-UP

Clean tools and equipment with water before material dries.

PRECAUTION / LIMITATION

- Place at ambient and material temperature of 4 - 32oC.
- Maximum open time before topping placement is 24 hours.