FLEX-CON

Acrylic Latex Bonding Admixture

EUCLID CHEMICAL

Description

FLEX-CON is a water dispersion of an architectural grade acrylic latex specifically designed for modifying portland cement compositions. Mortar modified with FLEX-CON has improved physical strength, and superior adhesion to old concrete, masonry, brick, and many other surfaces.

Primary Applications

- Admixture for overlays, repair mortars and leveling materials
- Thin sets, terrazzo, stucco and bond coats
- Repairs utilizing spray or fill coats
- General reconstruction work
- Repairs to precast structural members
- Architectural panels, bridge decks and highway repairs

Features/Benefits

- Improves bond strength
- Increases durability under freeze/thaw cycling
- Reduces cracking through increased mortar flexural strength
- Increases mortar wear resistance under rubber wheeled traffic
- Increases mortar tensile strength
- Repair mortar offers greater impact resistance

Technical Information

Material properties tested under laboratory conditions @ 27°C, 50% RH.

Properties	Value
Appearance	White Liquid
Specific Gravity	1.02
Solids Content (by weight)	25%
Bond Strength ASTM C 1042	14 days: 8.9 MPa
Compressive Strength of FLEX-CON Modified Repair Mortar ASTM C109, 50mm cubes	3 days: 21 MPa 7 days: 28 MPa 28 days: 34 MPa
Flexural Strength ASTM C 348	28 days: 9 MPa

Packaging

FLEX-CON is packaged in 20 kg HDPE pails and 210 kg HDPE drums

Shelf Life

12 months in original, unopened package

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Specifications/Compliances

Complies with ASTM C 1059, Type II.

FLEX-CON is classified by The American Concrete Institute as a non-reemulsifiable bonding admixture.

Coverage

Cement Bond Coat (m^2/kg)			
Coverage*	Cement	Sand	Flex-Con
56 to 74	50 kg	——	30 to 35 kg

Repair mortar (m^2/kg)				
Coverage	Cement	Sand	Flex-Con	Water
10 to 11@13mm	50 kg	158 kg	22 to 25 kg	10 to13 L

*Projected coverage is an estimate only, and is highly dependent upon concrete structure

Directions for Use

Surface Preparation: If using this product as a cement bond coat, the base concrete must be a minimum of 3 days old. The concrete must be clean of all oil, dirt, debris, paint, curing/sealing compounds and unsound concrete must be removed. The surface must be prepared mechanically using a scabbler, bushhammer, shotblaster or scarifier, so that the minimum surface profile is 3 mm and exposes the large aggregate of the concrete.

NOTE: Acid etching is not acceptable. Finally, clean the concrete of all residue with a vacuum cleaner or pressure washer. Allow the concrete surface to begin drying, and do not place the cement bond coat on standing water. Bond coat should be on a concrete substrate that is saturated surface dry (SSD) to reduce moisture loss.

Bonding: For bonding traffic bearing toppings with this product, The Euclid Chemical Company strongly recommends using a bond coat rather than using this product as a primer by itself. After the surface has been prepared, prime all areas with a bond coat (see above mix design) before the topping is applied. Follow mixing and placing instructions listed below. Place the topping on the bond coat before it dries out.

Mixing: Small quantities may be mixed with a drill and "jiffy" mixer. Use a paddle type mortar mixer for large jobs. All materials should be in the proper temperature range of 5^0 C to 32^0 C. Add the appropriate amount of FLEX-CON for the batch size and then add the dry material. Mix a minimum of 3 minutes. The mixed product should be quickly transported to the repair area and placed immediately.

Bond Coat Application: Spread the bond coat with a stiff bristle broom until the suggested coverage rate is achieved. Topping Application: For patching, spread with a trowel, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete. Finish by hand trowelling. On large floor areas, use screed guides in combination with a vibratory screeding to level. Compact and finish by hand or machine trowel.

Finishing: Finish the repair mortar to the desired texture. Typical texture is a broom or sponge float finish, though mortars made with FLEX-CON can be steel trowelled. Do not add additional water to the surface during the finishing operation. If additional liquid is required, use EUCOBAR finishing aid.

Curing: All cement products must be adequately cured. Proper curing procedure are important to ensure the durability and quality of the repair or overlayment. To prevent surface cracking
for 24 hours followed by use of a curing compound such as DIAMOND CLEAR VOX or AQUA CLEAR VOX.

Note: Do not use a solvent-based curing compound on late modified mortars.

Clean-Up

Clean tools and equipment with water before the material hardens.

PRECAUTIONS/LIMITATIONS

- Do not use material at temperatures below 4^0C.
- Do not use FLEX-CON by itself as a bonding agent. It must be mixed with cement.
- No heavy traffic until the repair has cured.
- Protect from freezing.
- Do not use in ready mix concrete.
- For thin topping mixes or large overlays, use SBR LATEX.
- For bonding floor toppings, a slurry bond coat is recommended.
- Use of this product in conjunction with air entrained cement/concrete or with other admixtures may significantly increase total entrained air content. Testing is strongly advised.
- Do not use a solvent-based curing compound on latex modified mortars
- In all cases, refer the Safety Data Sheet before use.

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