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 utilising 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

Property	Result
Solids content (by weight)	24%
Unit weight	1.05 kg/L
Compressive strength of FLEX-CON Modified Repair Mortar ASTM C 109, 2 in (50 mm) cubes	3 days: 21 MPa 7 days: 28 MPa 28 days: 34 MPa
Flexural strength ASTM C 348	28 days: 9 MPa
Bond strength ASTM C 1042	14 days: 8.9 MPa
Appearance	White Liquid

Properties determined at laboratory conditions.

Packaging

FLEX-CON is packaged in 200 L drums and 20 L pails.

Shelf Life

1 year 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. Canadian MTQ

Coverage

Coverage m²/L	Cement	Sand	FLEX-CON
Cement Bond Coat			
56 to 74	43 kg	-	26 to 30 L
Repair Mortar			
10 to 11 @ 13 mm	43 kg	136 kg	19 to 23 L

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

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°C to 32°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.
Curing: All cement products must be adequately cured. Proper curing procedures are important to ensure the durability and quality of the repair or overlayment. To prevent surface cracking, a moist cure should be maintained for 24 hours followed by use of a curing compound such as **DIAMOND CLEAR VOX or AQUA-CURE VOX.**
NOTE: Do not use a solvent-based curing compound on latex modified mortars.

Clean Up

Clean tools and equipment with water before the material hardens.

Precautions / Limitations

- Do not use material at temperatures below 4°C.
- 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, consult the Safety Data Sheet before use.

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