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Construction Solutions

# Slurry Bond Coats — When & What to Use

## TDS-1009

### INTRODUCTION – POLYMER OR LATEX FORTIFIED SLURRY BOND COATS FOR TRADITIONAL MORTAR BEDS

LATICRETE® latex slurry bond coats are used to bond 'wet' consistency toppings or levelling beds over horizontal substrates, such as concrete or masonry. In any case, their purpose is to provide an adhesive layer that bonds the substrate and the material going over it.

For tile setting purposes, traditional installation methods required dusting dry cement, or spreading a cement paste/slurry over the semi-dry mortar bed just prior to placing the tiles. The tiles are then placed in the cement rich surface, or more correctly, a Portland cement/water paste and "beaten" to fully imbed them in the mortar bed. "Beating" attaches a layer of cement rich paste as an adhesive between the sand/cement mortar bed surface and the tile backs.

Instead of the traditional cement paste, LATICRETE 254 Platinum, 335 Premium Flexible Adhesive or LATICRETE 211 Crete Filler Powder gauged with LATICRETE 4237 Latex Additive, mixed to a soft, wet slurry consistency is applied with a flat side of a trowel over the bed. The slurry is usually just 1 mm – 2 mm thick. The tiles are placed in the wet slurry and "beat-in" with a rubber mallet and beating block.

A slurry bond coat is also used to bond a mortar bed to a concrete, masonry or other suitable surface, including a previously applied hardened mortar bed. The slurry bond coat is applied to the substrate, including the top or edge of an existing hardened mortar bed, immediately prior to installing the fresh mortar bed. Work the slurry bond coats into harden surfaces with stiff brooms, trowels or slurry brushes. Apply slurry bond coats to freshly screeded mortar beds with the flat edge of a steel trowel.

LATICRETE slurry bond coats provide much longer "open" or working time for mortar bed installation, particularly in hot climates. It also has stronger bond to ceramic or stone tile, ensuring improved resistance to vibration, traffic and physical shock.

0.95 litres of LATICRETE 4237 Latex Additive mixed with 2kg of LATICRETE 211 Crete filler powder or 1 kg of Portland cement with 1 kg of sand produces slurry that covers 1 – 1.5 m<sup>2</sup> when applied at 1.5mm thick.

Replacing the traditional cement/water paste with a slurry bond coats of LATICRETE 254 Platinum, 335 Premium Flexible Adhesive or LATICRETE 4237 Latex Additive, results in many benefits:

1. Eliminates soaking and draining tile – increasing production dramatically
2. Much longer open time – more tiles can be applied before the slurry dries
3. Provides 5 times the bond strength than traditional cement slurries
4. Low cost

The LATICRETE System includes a variety of materials that can be utilised in Slurry Bond Coat applications depending on site conditions and other factors.

#### RECOMMENDED SLURRY BOND COAT MORTARS:

#### I. LATICRETE 254 Platinum Adhesive (mixed with water)

254 Platinum Adhesive is the ultimate one-step, polymer fortified, cementitious thin-set adhesive. 254 Platinum provides long open time with unsurpassed adhesion and workability.

For use:

1. Over concrete before placing a 'semi-dry' consistency traditional mortar bed (no minimum thickness);
2. Over 'semi-dry' consistency traditional mortar beds before placing ceramic tile, stone or thin brick.

Typical Mix Ratio: 5.8 – 6 Liters water: 20kg LATICRETE 254 Platinum Adhesive

Approximate Coverage at 1.5 mm thickness: 10 – 11 m<sup>2</sup> per stated mix proportions.

Note: In cold climate conditions, or under 'wet' consistency toppings/overlays, or with 'negative' cast panels, use LATICRETE 3701 Mortar Admix mixed with LATICRETE 211 Crete Filler Powder (see section below).

#### II. LATICRETE 335 Premium Flexible Adhesive (mixed with water)

High strength and flexibility in a polymer-fortified cementitious mortar combined with excellent working time – excellent open and setting time; For use:

For use

1. Over concrete before placing a 'semi-dry' consistency traditional mortar bed (no minimum thickness);

2. Over 'semi-dry' consistency traditional mortar beds before placing ceramic tile, stone or thin brick.

**Typical Mix Ratio:** 6.8 litres water: 20 kg LATICRETE 335 Premium Flexible Adhesive

**Approximate Coverage at 1.5 mm thickness:** 10 – 11 m<sup>2</sup> per stated mix proportions.

**Note:** In cold climate conditions, or under 'wet' consistency toppings/overlays, or with 'negative' cast panels, use LATICRETE 3701 Mortar Admix mixed with LATICRETE 211 Crete Filler Powder (see section below).

### III. LATICRETE 4237 Latex Additive

#### A. Mixed with LATICRETE 211 Crete Filler Powder

Un-equalled strength and flexibility in a latex fortified cementitious mortar combined with excellent working time – the 'all-round' choice with optimum balance between 'open' time and setting time;

**For use:**

1. Over concrete before placing a 'semi-dry' consistency traditional mortar bed (no minimum thickness);
2. Over 'semi-dry' consistency traditional mortar beds before placing ceramic tile, stone or brick.

**Typical Mix Ratio:** 1 volume LATICRETE 4237 Latex Additive: 1 volume LATICRETE 211 Crete Filler Powder (1:1.5 by weight);

**Approximate Coverage at 1.5 mm thickness:** 4 – 6 m<sup>2</sup> per 3.8 litres of LATICRETE 4237 Latex Additive.

**Note:** In cold climate conditions, or under 'wet' consistency toppings/overlays, or with 'negative' cast panels, use LATICRETE 3701 Mortar Admix mixed with LATICRETE 211 Crete Filler Powder (see section below).

#### B. Mixed with LATICRETE 315 Super Floor & Wall Adhesive or LATICRETE Ultra X8 Polymer Fortified Flexible Adhesive.

Maximum 'open' time with excellent strength and flexibility – ideal for hot, dry conditions especially in exterior applications;

**For use:**

1. Over concrete before placing a 'semi-dry' consistency traditional mortar bed (no minimum thickness);
2. Over 'semi-dry' consistency traditional mortar beds before placing ceramic tile, stone or brick.

**Typical Mix Ratio:** 1 volume LATICRETE 4237 Latex Additive: 1 volume LATICRETE 315 Super Floor & Wall Adhesive or LATICRETE Ultra X8 Polymer Fortified Flexible Adhesive, (1:1.5 by weight);

**Approximate Coverage at 1.5 mm thickness:** 4 – 6 m<sup>2</sup> per 3.8 litre of LATICRETE 4237 Latex Additive.

**Note:** In cold climate conditions, or under 'wet' consistency toppings/overlays, or with 'negative' cast panels, use LATICRETE 3701 Mortar Admix mixed with LATICRETE 211 Crete Filler Powder (see section below).

### IV. LATICRETE 3701 Mortar Admix

#### A. Mixed with LATICRETE 211 Crete Filler Powder

The same strength and flexibility as LATICRETE 4237 Latex Additive mixed with LATICRETE 211 Crete Filler Powder, but with less 'open' time and a faster 'final set' time.

**For use:**

1. Over concrete before placing a 'semi-dry' consistency traditional mortar bed in cold climate conditions (no minimum thickness);
2. Over 'semi-dry' consistency traditional mortar beds before placing ceramic tile, stone or brick in cold climate conditions;
3. Under 'wet' consistency toppings/overlays;
4. Over the backs of ceramic tile, stone or brick before placing concrete or mortar during fabrication of 'negative' cast panels.

**Typical Mix Ratio:** 1 volume LATICRETE 3701 Mortar Admix: 1 volume LATICRETE 211 Crete Filler Powder (1:1.5 by weight);

**Approximate Coverage at 1.5 mm thickness:** 4 – 6 m<sup>2</sup> per 3.8 litre of LATICRETE 3701 Mortar Admix.

#### B. Mixed with LATICRETE 315 Super Floor & Wall Adhesive or LATICRETE Ultra X8 Polymer Fortified Flexible Adhesive

Provides 'open' time, strength and flexibility similar to LATICRETE 4237 Latex Additive mixed with LATICRETE 211 Crete Filler Powder, but allows the convenience of using the same latex additive for 'semi-dry' consistency mortar beds and bond coats – only one latex additive is needed on site.

**For use:**

1. Over concrete before placing a 'semi-dry' consistency traditional mortar bed (no minimum thickness);
2. Over a 'semi-dry' consistency traditional mortar bed before placing ceramic tile, stone or brick.

**Typical Mix Ratio:** 1 volume LATICRETE 3701 Mortar Admix: 1 volume LATICRETE 315 Super Floor & Wall Adhesive or LATICRETE Ultra X8 Polymer Fortified Flexible Adhesive (1:1.5 by weight);

**Approximate Coverage at 1.5 mm thickness:** 4 – 6 m<sup>2</sup> per 3.8 litre of LATICRETE 3701 Mortar Admix.

**Note:** In cold climate conditions, or under 'wet' consistency toppings/overlays, or with 'negative' cast panels, use LATICRETE 3701 Mortar Admix mixed with LATICRETE 211 Crete Filler Powder (see section above).

## V. LATAPOXY® 300 Adhesive

Provides chemical resistance and bond strength that are superior to any latex modified Portland cement slurry bond coat.

Specifically designed for installing 'green' marble or other moisture sensitive stone and agglomerates to dry surfaces.

**For use:**

1. Over concrete before placing a 'semi-dry' consistency traditional mortar bed (no minimum thickness);
2. Over a 'semi-dry' consistency traditional mortar bed before placing ceramic tile, stone or brick;

**Typical Mix Ratio:** see package instructions;

**Approximate Coverage at 1.5 mm thickness:** 6 – 7 m<sup>2</sup> per #2 Unit

Consult Data Sheet DS-1047 and package instructions for further information

### Limitations

1. In cold climate conditions, or under wet consistency topping, levelling or patching mortars, or with 'negative' cast panels, do not use the following mortars as Slurry Bond Coats:
  - A. LATICRETE 4237 Latex Additive mixed with LATICRETE 211 Crete Filler Powder;
  - B. LATICRETE 4237 Latex Additive mixed with LATICRETE 315 Super Floor & Wall Adhesive or LATICRETE Ultra X8 Polymer Fortified Flexible Adhesive;
  - C. LATICRETE 3701 Mortar Admix mixed with LATICRETE 315 Super Floor & Wall Adhesive or LATICRETE Ultra X8 Polymer Fortified Flexible Adhesive;
2. Over vertical concrete, renders, plasters, stuccoes or other masonry, do not use Slurry Bond Coats – they will cause plastic consistency plasters, stuccos or mortars to slump or slide and are not needed to achieve a strong bond if the coating is properly troweled or worked into full contact with a clean substrate;
3. To provide superior bond over vertical concrete, renders, plasters, stuccoes or masonry, all of the Slurry Bond Coat mortars described above can be applied as a separate 'key' coat; however, the 'key coat' must be allowed to set firm before the next coat or final finish coat is applied.