



A RAPID SETTING POLYMER-MODIFIED, PORTLAND CEMENT BASED MORTAR THAT IS IDEAL FOR FAST-TRACK INSTALLATIONS OF GLASS TILE AND BACK SPLASHES. CAN BE USED WITH PORCELAIN, GLASS, CERAMIC, QUARRY, MOSAICS AND MOST NATURAL STONE TILE OVER ALL COMMON SUBSTRATES



### PRODUCT DESCRIPTION

DCI 500 RAPID highly deformable, cementitious adhesive with no vertical slip and extended open time for ceramic and porcelain slabs tiles. DCI 500 RAPID is a C2FTS2 class cementitious (C), improved (2), non-slip (T), fast setting (F) highly deformable (S2) adhesive. DCI 500 RAPID can be used on walls and floors for thin bed and medium bed installations of tiles and stone material

### FIELD OF APPLICATION

- For interior and exterior use
- For floors and walls
- Suitable for swimming pool
- For thin-bed and medium bed installations of all types of tiles
- Suitable for installation of large format tiles
- For thicknesses up to 20 mm
- Suitable for application over waterproofing products like Seal Master, Seal Master Elastic, Aquaprotect, etc.
- Suitable for floor heated substrates
- For heavy-duty and high traffic areas
- Over the existing wall and floor tiles

### SUITABLE SUBSTRATES

- Concrete
- Cement Mortar
- Cement Mortar Bed
- Cement Plaster/Render

- Cement Block
- CMU
- Gypsum Underlayment
- Gypsum Wallboard
- Liquid waterproofing membranes
- Uncoupling membranes
- Plywood
- Existing tiles
- Cutback adhesive

### LIMITATIONS

- Do not mix with other elements.
- Do not apply on metallic or rubber substrate.
- Do not apply for marbles or stone tiles subject to staining or efflorescence cause by water absorption.
- Do not apply on substrate subject to significant movement or vibration.
- Do not apply on not sufficient cured substrate.

### APPLICATION PROCEDURE

#### a) Preparation of the support

The support must be totally dried, mechanically hard, free of oils, grease, wax, paint, and loose particles. All substrates must not be subject to shrinkage after the installation of the tiles. During the spring and summer period, renders must be cured for at least one week for every centimeter of thickness, and cement screeds must be cured for at least 28 days unless they

have been made with DCI special binders for screeds such as Screed80, Level S10, or with Level S30. Gypsum substrates or anhydrite screeds must be perfectly dry (max. residual moisture 0.5%), sufficiently hard, and free of dust. They must be treated with DCI Grip Primer or Beton Contact, while areas subject to high humidity must be treated with PRIMER CTA.

#### **b) Preparing the product**

DCI 500 RAPID must be mixed with clean water until obtaining a homogenous mixture. After 5-10 minutes of resting, the mix should be mixed again. After this, the product is ready to be used. The water demand to be used is approximately 29-31% of DCI 500 RAPID (equal to ca. 7.25-7.75 liters of water). The mixture, produced in this way, is workable for at least 4 hours.

#### **c) Applying the product**

DCI 500 RAPID is applied with a notched trowel onto the substrate. Choose a trowel that will give coverage to the back of the tiles at least 65-70% for walls or indoor light foot traffic. For heavy traffic, the coverage must be 100%. To obtain good adhesion to the substrate, the following system is recommended: first, apply a thin coat of DCI 500 RAPID using the smooth side of the trowel and immediately after applying the desired thickness of DCI 500 RAPID using the toothed side of the trowel.

#### **d) Installing the tiles**

It is unnecessary to wet the tiles before installation; however, the backs are very dusty, they should be wiped in clean water. The tiles are installed under firm pressure to ensure good contact with the adhesive. DCI 500 RAPID open time in normal temperature and humidity is 20-30 minutes. Unfavorable weather conditions (high temperature, strong sun, drying wind) or high absorbent substrate may shorten the open time and, in some cases quite drastically, to just a few minutes. For this reason, there should be continuous con-

trols to see if the adhesive is still fresh to the touch or has formed a surface skin. Should a surface skin have formed, the adhesive should be re-troweling. It is inadvisable to wet the adhesive when it has formed a skin because a non-adhesive film will be formed instead of dissolving the skin. Adjustment of the tiles, if necessary, should be carried out within 60 minutes following installation, after which time adjustment will become problematic. Tiling installed with DCI 500 RAPID must not be subject to rain for at least the first 24 hours and must be protected from frost and direct sun for at least 5-7 days after application.

#### **e) Applying the grout**

The grout installation can be done after a minimum of 8 hours curing time at 23°C and 50% relative humidity for walls and after a minimum of 24 hours curing time at 23°C and 50% relative humidity for floors. Conditions may change the setting and curing time significantly.

### **COVERAGE / CONSUMPTION**

- 1,5 kg/m<sup>2</sup> with a 4 mm notched trowel
- 3 kg/m<sup>2</sup> with a 8 mm notched trowel
- 3.5 - 4 kg/m<sup>2</sup> with a 10 mm notched trowel
- 7 - 8 kg/m<sup>2</sup> with a 20 mm notched trowel

### **PACKAGING**

DCI 500 RAPID is supplied in 25Kg paper bag.



## SHELF LIFE

Original sealed bags of this product are guaranteed to be of first quality for 12 months if stored off of the ground in a dry area. High humidity will reduce the shelf life of the bagged product.

## SAFETY INSTRUCTION

DCI 500 RAPID contains cement that, when in contact with sweat or other body fluid, can cause allergic reactions to those predisposed and irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to the eyes. Wear protective gloves, goggles and take the usual precautions for handling chemicals during use. When in case of contact with skin or eyes wash immediately with plenty of water and seek medical attention.

## WARNING

Danger. Contains Portland Cement: Chromium VI < 2 ppm within the validity period of the product. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. P261 Avoid breathing dust. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF IN CONTACT WITH YOUR SKIN: Wash with plenty of water/... P305 + P351 + P338 IF IN CONTACT WITH YOUR EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor/...

## TECHNICAL DATA

| Product identity                                            |                                                             |
|-------------------------------------------------------------|-------------------------------------------------------------|
| Consistency:                                                | Powder                                                      |
| Color:                                                      | White or Grey                                               |
| Bulk density (kg/m <sup>3</sup> ):                          | 1250                                                        |
| Dry solids content (%):                                     | 100                                                         |
| Maximum grain size:                                         | 0.6mm                                                       |
| Classification:                                             | EN 12004 and EN 12002                                       |
| Application data (at +23°C and 50% R.H.)                    |                                                             |
| Mix ratio:                                                  | 100 parts DCI 500 RAPID with 28-30 parts by weight of water |
| Consistency of mix:                                         | very pasty                                                  |
| Density of mix (kg/m <sup>3</sup> )                         | 1450                                                        |
| pH of mix:                                                  | 12                                                          |
| Pot life:                                                   | over 1 hours                                                |
| Application temperature:                                    | +5°C to +40°C                                               |
| Open time:                                                  | >30 minutes                                                 |
| Slip:                                                       | 0.2mm                                                       |
| Deformability:                                              | 5.2mm                                                       |
| Adjustability time:                                         | approx. 50 minutes                                          |
| Final performances                                          |                                                             |
| Adhesion strength according to EN 1348 (N/mm <sup>2</sup> ) |                                                             |
| Initial adhesion strength (after 6 hours):                  | 0.8                                                         |
| - Initial adhesion strength (after 28 days):                | 2.4                                                         |
| - Adhesion strength after heat:                             | 1.8                                                         |
| - Adhesion strength after water immersion:                  | 1.7                                                         |
| - Adhesion strength after freeze-thaw cycles:               | 1.7                                                         |
| Temperature resistance after final cure:                    | from -30°C to +90°C                                         |



+1 55 12 258 428  
info@dc-industries.us  
www.dc-industries.us