



## CEMENTITIOUS ADHESIVE FOR CERAMIC TILES



### PRODUCT DESCRIPTION

DCI 077 is a normal cement based adhesive with excellent workability and extended open time, designed for use in interior thin-bed applications and it is mixed with either water or latex admixture. DCI 077 is a C1E class cementitious (C), normal (1), extended open time (E), adhesive. DCI 077 is a grey or white-coloured powder made from cement, selected graded sand, synthetic resin and special additives which can be used on walls and floors for thin bed installations of tiles and stone material.

### FIELD OF APPLICATION

- For interior use
- For floors and walls
- For thin-bed installations of all types of tiles
- For thicknesses up to 6 mm
- Can be fortified with latex admix for improved performance

### SUITABLE SUBSTRATES

- Concrete
- Cement Mortar
- Cement Mortar Bed
- Cement Plaster/Render
- Cement Block
- Gypsum Underlayment
- Gypsum Wallboard
- Self-Leveling and Patching Compounds

### 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 caused by water absorption.
- Do not apply on substrate subject to large movement or vibration.
- Do not apply on not sufficiently cured substrate.
- Do not apply for heavy and large format tiles

### 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 Screed 80, 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 077 must be mixed with clean water to obtain a homogenous mixture free of lumps. After 5-10 minutes resting, it must be mixed again. The mixture is then ready to be used. The demand of water to be used is approximately 24-26 parts per 100 parts (by weight) of DCI 077 (equal to ca. 6 -6.5 liters of water). The mixture, produced in this way, is workable for at least 4 hours.

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

DCI 077 is applied with a notched trowel onto the substrate. Choose a trowel that will give coverage to the back of the tiles of at least 60-70% for walls or for indoor light foot traffic.

#### **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 077 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 controls to see if the adhesive is still fresh to the touch or has formed a surface skin. If a surface skin is formed, the adhesive should be retroweling. It is not suitable 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, has to be carried out within the first 60 minutes following installation, after which time adjustment will become problematic. The tiles installed with DCI 077 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

#### **PACKAGING**

DCI 077 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 077 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.



## 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
Application data (at +23°C and 50% R.H.)	
Mix ratio:	100 parts DCI 077 with 26-28 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 4 hours
Application temperature:	+5°C to +40°C
Open time:	>30 minutes
Slip	0.4mm
Adjustability time:	approx. 40 minutes
Final performances	
Adhesion strength according to EN 1348 (N/mm <sup>2</sup> )	
– Initial adhesion strength (after 28 days):	0.75
– Adhesion strength after heat:	0.82
– Adhesion strength after water immersion:	0.69
– Adhesion strength after freeze-thaw cycles:	0.55
Temperature resistance after final cure:	from -10°C to +70°C

### 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/...



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