

PCI CARRALIGHT

Flexible, light thin-bed mortar for natural stone applications

Areas of application

- For indoor and outdoor use.
- For walls and floors.
- For weight-optimising laying of calibrated natural stone.
- On cement screeds, concrete and precast concrete elements, ground anhydrite and/or gypsum-based floated screeds, heated screeds, mastic asphalt, plasterboards, gypsum fibre boards, dry screeds, insulation boards, plaster slabs, plasters, aerated concrete and old wall and floor tiles.
- For adhesive bed thicknesses from 2 to 10 mm.
- Tile laying on the bonded waterproofing PCI Lastogum.



Laying of natural stone tiles on walls with PCI Carralight.

Features and benefits

- **Polymer modified**, guarantees excellent adhesion even to non-absorbent natural stone such as granites or quartzites.
- **Low density**, therefore weight-saving tiling.
- **Flexible**, compensates tensions in the substrate and variations in temperature.

- **Rapid curing**, walkable and groutable after approx. 6 hours and able to bear weight after approx. 1 day.
- **White colour**, no staining from the adhesive bed when laying very light-coloured natural stone tiles.
- **Good workability**, therefore easy to apply.
- **Resistant to permanent water and frost**, multi-purpose use indoors and out on walls and floors.
- **Corresponds to C2FT in accordance with DIN EN 12004. 05**

Technical data material

Material base	Dry mortar mix with light fillers and elastifying polymers. Does not contain any asbestos or other mineral fibres. No injurious silica dust during the application.
Colour	White
Labelling for - Regulation for hazardous goods on roads - Regulation for hazardous substances	Non hazardous Irritant, contains cement
<i>For further information refer to Health and Safety.</i>	

Shelf life

Minimum 6 months when stored in dry conditions, no permanent storage over +30°C

Packaging

15 kg PE-lined heavy duty paper bag

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Application

Consumption and coverage*

required notch size	Consumption per m ² approx	15 kg bag sufficient for approx.
4 mm	1.1 kg	14.0 m ²
6 mm	1.5 kg	9.5 m ²
8 mm	2.1 kg	7.0 m ²
10 mm	2.6 kg	5.8 m ²
Working temperature	+5°C to +25°C (substrate temperature)	
Gauging water		
- 15 kg bag	approx. 7.35 ltr	
- 1 kg powder	approx. 490 ml	
Thickness of adhesive bed	2 to 10 mm	
Slake time approx.	3 minutes	
Working time**	approx. 45 minutes	
Open time**	approx. 20 minutes	
Curing times**		
- Walked on after	approx. 6 hours	
- groutable after	approx. 6 hours	
- able to bear weight after	approx. 24 hours	
Temperature resistance	-20°C to +80°C	

* The reverse profile of the used ceramic and the surface structure of the substrate to be covered are also important factors, besides the tile size, for the consumption of PCI Carralight. In practice the consumption may therefore deviate from the indicated values.

** At +23°C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase the times given.

Preparation of substrate

Minimum age of the substrate:

- Cementitious screed 28 days
- Concrete 3 months

The substrate must be sound, clean and able to bear weight. Oil stains, bond-breaking residues and contamination (also residues of carpet glues) must be thoroughly removed. The substrate to be tiled must be plumb and flush according to DIN 18202. Irregularities on walls must be levelled. Floor surfaces need to be levelled with Mastertop 528.

Prime cementitious substrates with PCI Gisogrund, diluted 1:1 with water. Ground anhydrite and/or gypsum based floated screeds as well as gypsum based substrates and mastic asphalt screeds indoors should be primed with undiluted PCI Gisogrund. For fast track works prime mineral substrates with the fast-acting primer PCI Gisofix NT. Allow the primer to dry. Newly installed cement screeds must not have a residual moisture content of more than 4%, anhydrite and/or gypsum based screeds not more than 0.5% (measured with a CM meter).

Application Procedure

Mixing

- Place gauging water (see Technical Data/Application) in a clean mixing container. Add PCI Carralight and mix with a suitable paddle (e.g. available from Collomix) attached to an electric drill until a plastic, lump-free mortar is achieved.
- Allow a slake time of approx. 3 minutes, then remix briefly.

Laying tiles

- Apply a thin scratch coat onto the substrate using the straight edge of the trowel.
- Comb mortar onto the fresh scratch coat with the notched edge of the trowel. Apply only as much mortar as can be covered with tiles within the open time (approx. 15 minutes).

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Test the open time by touching the adhesive bed with your fingertip.

- Staining from the ridges of the adhesive bed is prevented by void-free laying of natural stone flags in the back-buttering method. Flags are back-buttered with PCI Carralight.
- Place tiles in the adhesive bed with a twist and slide motion whilst adjusting them to the correct position.

Grouting Joint width from 1 to 8 mm

PCI Carrafug

With water repellent joint grout

(only for polished natural stone)

PCI Flexfug

Colour	Joint width
no. 22 sand grey	3 to 15 mm
no. 18 manhattan	2 to 10 mm
no. 19 basalt	2 to 10 mm
no. 30 aged white	2 to 10 mm

Elastic joints

Corner joints (floor/wall, wall/wall, wall/soffit) and connection joints (fixtures/tiles, wood/tiles) must be sealed with the elastic joint sealant PCI Carraferm.

Note

- Do not apply at substrate temperatures below +5°C or above +25°C or under very windy and warm conditions.
- The instructions issued by the gypsum manufacturers must be followed for installations on plaster/render and gypsum-based substrates.
- For installation onto heated screeds and weather-exposed balconies and terraces the

recommendations stated in the leaflet "Ceramic tiles, natural and concrete stones on heated, cement-based flooring structures" (edition September 1995), issued by the Central Association of the German Building Business, must be followed.

- When laying natural stone on bonded waterproofing the leaflet "Bonded waterproofing" (edition January 2005) issued by the Central Association of the German Building Business, must be followed.
- Do not use PCI Carralight to level irregularities in the substrate exceeding 10 mm.
- It is required for the installation of marble on chipboards to use PCI Collastic or to install the separation board PCI Polysilent (PCI technical data sheet no. 127).
- Do not add water, fresh mortar and/or powder to reconstitute a mortar mix which has already begun to set.
- Natural stones must not be laid with PCI Carralight in the dot bonding technique.
- Marble or calcitic natural stones must not be acid-washed in any case.
- For outdoor application only use natural stones which are suitable for this purpose.

Note

- Clean tools with water immediately after use, once the product is hard it can only be removed by mechanical means.
- Very absorbent, thin natural stones may show a slight deepening of the colour after the installation which, however, will recede without leaving any residues after PCI Carralight has cured.
- Reasons for discolourings on natural stones may be:
 - The Existence of coloured organic and/or inorganic substances in natural stone

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which are partly water-soluble. Organic: fossil substances. Inorganic: iron and calcium combinations. Due to this fact it is impossible to predict if discolouring on the surface will or will not occur after the tiles have been installed. PCI Carralight in combination with dry substrates minimises the transportation of water via capillary action to the surface of the natural stone and thus the described risk of discolouring. The risk of discolouring or even efflorescence can be totally excluded only by using the water-free, 2-part polyurethane based tile adhesive PCI Collastic. Apart from the existing typical staining substances there are other reasons that can cause discolourings on natural stones:

- High polymeric adhesive residues on substrates to be covered,
- Use of colouring plasticizers for the production of screeds,
Damp cardboard covers for the protection of natural stone surfaces, discarded cigarette butts etc.
- Very absorbent, Chinese granites (e.g. Padang) are prone to irreversible discolouration; it is therefore recommended to carry out a trial in this case.
- The installation of natural stones on outdoor facades should be carried out in accordance with DIN 18515-1; contact the Technical department.
- When laying natural stones which show an extreme concave arching when absorbing water (e.g. slate or Serpentinite) please contact the technical department.

- Suitable tools are available from e.g. Collomix GmbH, Horchstr. 2, 85080 Gaimersheim/Germany, www.collomix.de, or Karl Dahm & Partner GmbH, Ludwigstr. 5, 83358 Seebruck/ Germany.
- Shelf life: min. 6 months when stored in dry conditions, no permanent storage over +30°C.

Health and safety

General information on cementitious products

PCI Carralight contains cement. Contact with moisture or gauging water sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. eyes). Risk of serious damage to eyes, therefore avoid contact with eyes and prolonged contact with skin. In case of contact with eyes immediately rinse with plenty of water and seek prompt medical attention. In case of contact with skin change contaminated clothing immediately and wash skin with plenty of soap and water. Wear appropriate protective gloves (e.g. cotton gloves soaked in nitrile). If ingested seek prompt medical attention. Keep out of reach of children.

Low in chromates according to TRGS 613.

For further information refer to the PCI Material Safety Data Sheet.

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