

# KM 100

EN 12004  
C2TE

## White polymer modified adhesive for marble and granite tiles

### DESCRIPTION

KM 100 is a white cementitious adhesive, based on high-strength Portland white cement (I - 52.5), reinforced with polymer resins, white marble aggregates and special additives to improve adhesion of marble or granite tiles.

It is classified as type C2TE adhesive according to EN 12004 and bears the corresponding CE marking.

With EUROFINS Indoor Air Comfort Gold certification which ensures that KM 100 meets the strictest European regulations regarding VOC emissions. The product is also accompanied by an Environmental Product Declaration (EPD) regarding the environmental impact during its life cycle (EPD registration number: S-P-09964).

### FIELDS OF APPLICATION

Strong adhesions of marble or granite tiles with particular features, such as white or very absorbent marbles, which require adhesion materials with advanced characteristics, to protect their surface and colours.

Also for the adhesion of ceramic and low-absorbency tiles, decorative bricks, etc.

In case of artificial quartz surface tiles, it is recommended to add MARMOLINE MP 20 acrylic dispersion to the mixture.

KM 100 can be used on any common cementitious-based substrate, on floors or walls, indoors or outdoors.

### CHARACTERISTICS/ADVANTAGES

- Excellent adhesion
- High strength
- Moisture and frost-proof
- Easy to apply - simply add water
- Indoor and outdoor use
- Protects the white and light-colored marbles from stains, cracks and flaking, in case of moisture coming from the substrate.

## PRODUCT INFORMATION

<b>Composition</b>	Portland cement, aggregates of selected grading of white marble, special additives and polymers
<b>Appearance/Colour</b>	White powder
<b>Packaging</b>	25 kg paper bag – 1500 kg pallet (60 bags)
<b>Storage conditions</b>	Store in the original, closed, sealed packaging, protected from direct sunlight and frost and at temperatures from +5°C to +35°C
<b>Shelf life</b>	12 months from date of manufacture

## TECHNICAL CHARACTERISTICS

<b>Specific gravity of wet mortar:</b>	~ 1.58 kg/lt (+20°C)	
<b>Slip:</b>	≤ 0.5 mm	(EN 1308)
<b>Adhesion strength:</b>		
<i>Average laboratory test values – annual results 2022:</i>		
<b>On concrete after 28 days:</b>	1.70 N/mm <sup>2</sup>	(EN 1348)
<b>After heating at 70°C:</b>	1.50 N/mm <sup>2</sup>	(EN 1348)
<b>After immersion in water:</b>	1.50 N/mm <sup>2</sup>	(EN 1348)
<b>After 25 cycles of freezing - thawing:</b>	1.20 N/mm <sup>2</sup>	(EN 1348)
<b>Open time for application:</b>	30 min	(EN 1346)
<b>Time for minor corrections:</b>	10 min	

## APPLICATION INFORMATION

<b>Substrate temperature</b>	+5°C / +35°C
<b>Ambient temperature</b>	+5°C / +35°C
<b>Mixing ratio</b>	~ 7.0 – 7.5 lt water/ 25 kg bag
<b>Consumption</b>	2.5 – 4.0 kg/m <sup>2</sup> , depending on the smoothness of the surface, the size and type of tiles
<b>Grouting</b>	On floor: ~24 hours at +20°C On wall: ~12 hours at +20°C

## DIRECTIONS OF USE

### SUBSTRATE PREPARATION

The substrate must be firm, compact, dry and free from dust, loosely attached particles and all kinds of dirt. The preparation of the substrate must be carried out by appropriate mechanical means (e.g. sanding, water blasting, etc.).

If the substrate is loose or chipping, it is recommended to prime the surface with MARMOLINE MST 11 acrylic water based primer.

### MIXING

Mix well, with a low-speed electric drill, a 25 kg bag with about 7-7.5 liters of clean water. Leave the mixture to set for about 5-10 minutes and then stir again. Spread with a suitable notched trowel. Choose its size according to the substrate and the type of tile.

Tiles must be fixed within 30 minutes after applying the adhesive and definitely before it skins-over.

### APPLICATION

Spread with a notched trowel. Choose the size according to the type of tile and the substrate.

Fix the tiles by pressing them gently and then level them

The adhesive remains workable in the pot for 3 to 4 hours depending on the season, temperature and humidity in the environment.

When the mixture begins to set, stir again without adding water.

Proceed to joint-filling after 24 hours for floors and 12 hours for walls

## TOOLS CLEANING

Fresh material should be removed from the equipment with water immediately after application. Hardened/mature material can only be removed by mechanical means.

## IMPORTANT NOTICE

- The application of the adhesive and installation of the tiles should be carried out at temperatures between +5°C and +35°C, without exposure to direct sunlight and strong wind.
- Apply only to stable, well-prepared substrates.
- Do not exceed the recommended maximum amount of mixing water.
- Do not add any other material to the powder.
- Do not add extra water to adhesive that has already started to set.
- Do not wet the applied adhesive before placing the tiles.
- Do not exceed the maximum application thickness.
- Protect the application surface from frost, wind and direct sunlight for at least 24 hours after application.

## COMPLIANCE WITH STANDARDS

CE marking and Declaration of Performance as C2TE, Improved cementitious tile adhesive with reduced slip and extended open time, according to EN 12004.

## HEALTH, SAFETY & ENVIRONMENTAL PROTECTION

Detailed information and instructions regarding the safe management of the product and in matters of Health & Safety, are provided in the most recent Safety Data Sheet (SDS), copies of which are available on the company's website <https://marmoline.gr/> or upon request.


### LEGAL NOTICE

We guarantee the quality of all our products, based on their technical specifications, as described in the Declaration of Performance (CE) and this Technical Data Sheet. Such guarantee refers only to the products that we deliver for use and never to its application or final result, which largely depends on the experience and quality of work of each user and on the application conditions. The user is advised to test the product on a small scale, and if he is satisfied with the result, then to use the product on large scale in his project.

All data stated in this Technical Data Sheet are based on laboratory tests. The really measurable data might differentiate due to conditions that are not subject to our control. The recommendations and implementation instructions must be considered by the user as indicative, and always with given that the product has been traded and stored according to its instructions.

As it is not possible to control the parameters/conditions of its application product in practice, no guarantee is provided for the final result of each application. Consequently, no legal liability of the Company can be established based on the information and instruction given in this Technical Data Sheet.

The Company reserves the right to modify data listed in this Product Data Sheet, with no previous warning. Users must refer to the latest version of the product Technical Data Sheet .

 12 DoP: 001 MARMO-CPR	
NORDIA SA 364 Kifissias Av., 15233 Chalandri, Athens, Greece	
EN 12004:2007+A1:2012 MARMOLINE KM 100 Improved cementitious adhesive for tiles with reduced slip and extended open time	
Initial tensile adhesion strength:	≥ 1.0 N/mm <sup>2</sup>
Tensile adhesion strength after heat ageing:	≥ 1.0 N/mm <sup>2</sup>
Tensile adhesion strength after water immersion:	≥ 1.0 N/mm <sup>2</sup>
Tensile adhesion strength after freeze/thaw cycles:	≥ 1.0 N/mm <sup>2</sup>
Reaction to fire:	A2-s1,d0
Release of dangerous substances:	See product's SDS
see detailed DoP in <a href="https://marmoline.gr">https://marmoline.gr</a>	