CEMENT-BASED MORTAR FOR TILING WITH LOW-POROUS ELEMENTS ON TRADITIONAL SUBSTRATES

DESCRIPTION

MAXKOLA® -M is a cement adhesive improved with reduced slip and extended open time, (Type and class C2TE), applied in thin layer, that once mixed with water provides a suitable paste for placing of low porosity tiles and stones, on both indoor and outdoor surfaces.

APPLICATION FIELDS

- Fixing of ceramic tiles with high, medium and low porosity, non-porous or vitrified gresite, glass mosaics porcelain, marble or natural stone claddings for indoor or outdoor, in floors and walls.
- Tiling on cementitious substrates, screed walls, electric floor warming systems, existing tiling, etc.
- Tiling of ceramic tiles on traditional substrates and distortable substrates such as facades, under floor heating systems, gypsum, anhydrite, timber, plastic, etc.
- Tiling on substrates subjected to permanent immersion such as swimming pools, fountains, water tanks, etc.

ADVANTAGES

- Very high adhesion on normal building substrates and to non-porous tiles and good mechanical properties.
- Excellent water retention, avoids dampen the substrate or tiles.
- Good thixotropy and initial adhesion, prevents sliding of the placed pieces and tiles.
- Easy to use. Long open time and good workability, allowing correct the tile pattern.

APPLICATION INSTRUCTIONS

Surface preparation
Surfaces to be tiled must be structurally sound, clean and free from dust, grease, paints, efflorescence, oils, gypsum, loose concrete or any other material that could affect to adhesion of the product.

Substrate must be as flat as possible, with no unevenness greater than 5 mm measured with a 2 meters long guide.

When tiling on gypsum substrates, use MAXKOLA® Y (Technical Bulletin N.: 74). In outdoor applications use MAXKOLA® FLEX (Technical Bulletin N.: 781). It is recommended to apply a regularization rendering. Do not apply MAXKOLA® M over dead, delayed setting gypsum plasters or those finished with a thin layer of plaster.

Voids, cracks and surface damages must be prepared by chipping or sand blasting and repaired with a structural mortar such as MAXREST® or MAXRITE® 500 (Technical Bulletins N.: 2 and 50, respectively).

Mixing
A 25 kg bag of MAXKOLA® -M is mixed with from 6 to 7 litres of clean water (24 - 28%). Mix mechanically using a low speed drills (400-600 rpm) until achieving a lump free and homogeneous paste. Small quantities of product can also be mixed by hand. Do not mix for prolonged period nor use high-speed mixer. Allow mortar to rest for at least 5 minutes and then, remix briefly again before applying.

Only mix quantities that can be placed in 30 minutes. After this period, setting process starts and mortar losses its workability. If it is needed, remix again briefly the mixture in order to keep its workability, but do not add more water.

Application
Apply MAXKOLA® -M on areas not greater than 2 m² at a time with a 6x6 mm notched trowel in horizontal direction in vertical walls in order to control the application thickness and avoid the slumping of the tiles placed on vertical surfaces. Do not apply in thickness greater than 6 mm.
While mortar is still fresh, place the pieces and press them with slight twisting motion and using a rubber hammer, until flattening the ridges and ensuring the tile back achieves full contact with the mortar. Check the product adhesion by occasionally removing a set piece and inspecting mortar transfer onto back of tile.

The open time at 20 ºC is 30 minutes and the rectification time is 5 minutes, increasing with lower temperatures or small quantities of mixture and reducing with higher temperatures.

Remove excess mortar from the joint before it sets. Joint grouting can be carried out after 24 hours using a suitable MAXJOINT® range product. Large format or non absorbent tiles will take longer time.

For large-format pieces, i.e. bigger than 35x35 cm, apply the adhesive on both surfaces (double spread gluing) of the substrate and the tiles, or use of MAXKOLA® FLEX (Technical Bulletin N.: 81) preferably.

Application Conditions
Do not apply when rain or if rain if expected and /or contact with water, condensation, dew or moisture, etc.... within 24 hours after application.

The optimum temperature interval is between 10 to 30º C. Do not apply with ambient or substrate temperatures below 5º C or if lower temperatures are expected during the following 24 hours. Do not apply on frozen or frosted surfaces.

Protect the application from high temperatures, moderate to high winds or low humidity conditions or direct sunlight exposure, i.e. summer time.

Curing
Allow a minimum curing time of 1, 2 and 7 days at 20º C and 50% R.H. before joint grouting, open to pedestrian traffic, and for permanent immersion, respectively.

Applications carried out at lower temperatures with high relative humidity or with poor ventilation will require longer curing times.

Protect the application during the first hours of curing from high temperatures, high winds, low humidity conditions or direct sunlight exposure

Cleaning
Before MAXKOLA® -M sets, all tools and equipment should be cleaned immediately with water. Once harden, can only be removed by mechanical means.

CONSUMPTION
The estimated consumption for MAXKOLA® -M is 1,5 kg/m²·mm thickness.

Consumption may vary depending on the roughness, porosity and other conditions for both tile and surface. A preliminary test on-site will determine the coverage exactly.

IMPORTANT INDICATIONS
- Allow 28 days minimum curing for new concrete and mortars.
- Do not add cements, admixtures or aggregates that may affect the mortar properties.
- Observe the recommended mixing water ratio.
- Remix briefly the mortar in order to keep its workability, but do not add more water.
- Do not exceed the maximum thickness recommended per layer of 6 mm.
- The ceramic tiles must be set within the open time of the mortar, before non adhesive skin is formed on the surface of the mortar.
- Double spread application is preceptive for 35 x 35 cm ceramic tiles or higher dimensions and in heavy pedestrian traffic and with pronounced relief.
- For further information and other uses not specified in this Technical Bulletin, consult our Technical Department.

PACKAGING
MAXKOLA® -M is supplied in 25 kg bag and it is available in standard grey and white colour.

STORAGE
Twelve months in its original unopened packaging, in a dry covered place protected from direct sunlight, humidity and frost, at temperatures above 5 ºC.

SAFETY AND HEALTH
MAXKOLA® -M is non toxic but has abrasive compounds, so protective rubber gloves and safety goggles must be used to prepare and apply the mixture. In case of eye contact, rinse thoroughly with clean water, but do not rub. In case of skin contact, wash affected areas with soap and water. If irritation continues, seek medical attention. For further information, Safety Data Sheet of MAXKOLA® -M is available by request.

Disposal of the product and its empty container must be made by the final user and according to official regulations.
## TECHNICAL DATA

### Characteristics of the product

**CE Marking, UNE-EN 12004**

Description: Improved cement adhesive with reduced slip and extended open time. C2TE

Uses: Indoor and outdoor tiling in floors and walls.

<table>
<thead>
<tr>
<th>Appearance and colour</th>
<th>White or grey powder</th>
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</thead>
<tbody>
<tr>
<td>Maximum aggregate size (mm)</td>
<td>0,8</td>
</tr>
<tr>
<td>Apparent density in powder form (g/cm³)</td>
<td>1,19 ± 0,10</td>
</tr>
<tr>
<td>Mixing water (% by weight)</td>
<td>26 ± 2</td>
</tr>
<tr>
<td>Apparent density of mortar (g/cm³)</td>
<td>1,62 ± 0,10</td>
</tr>
</tbody>
</table>

### Application and curing conditions

| Ambient and substrate optimum temperature (°C) | 5 - 35 |
| Open time at 23 °C and 50% R.H. EN 1346 (minutes) | 30 |
| Rectification time at 20 °C (minutes) | 5 |
| Curing time at 20°C and 50% R.H. (d) |
| - Tile wound grouting | 1 |
| - Pedestrian traffic | 2 |
| Water retention (g) | 2,96 |

### Characteristics of the cured product

| Slip at 23 °C and 50% R.H., EN 1308 (mm) | 0,5 |
| Tensile strength, EN 1348 (Mpa) |
| - Initial bonding | 1,4 |
| - Bonding after immersion in water | 1,0 |
| - Bonding after thermal ageing | 1,0 |
| - Bonding after freeze / thaw cycles | 1,2 |

### Consumption* / Thickness

| Consumption (kg/m²·mm thickness) | 1,5 |
| Recommended minimum / maximum thickness per layer (mm) | 6 |

* Consumption may vary depending on the roughness, porosity and other conditions for both tile and surface. A preliminary test on-site will determine the coverage exactly.
GUARANTEE

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