



189194 MILANO GRIGIO

9mm 20x20 cm./7.9x7.9in. • M921

Información Técnica / Technical Information

| Icon | Test                                  | Standard             | Result              |
|------|---------------------------------------|----------------------|---------------------|
|      | DIMENSIONS                            | UNE EN ISO 10545-2   | ± 0,6%              |
|      | WATER ABSORPTION                      | UNE EN ISO 10545-3   | E <= 0.5%           |
|      | RESISTANCE TO SURFACE ABRASION        | UNE EN ISO 10545-7   | CLASE 2 / CLASS 2   |
|      | CHEMICAL RESISTANCE                   | UNE EN ISO 10545-13  | LA                  |
|      | FLATNESS                              | UNE EN ISO 10545-2   | ± 0,5%              |
|      | SCRATCH HARDNESS                      | UNE EN 67-101        | 6                   |
|      | CRAZING RESISTANCE                    | UNE EN ISO 10545-11  | CUMPLE / ACCOMPLISH |
|      | RESISTANCE TO STAINS                  | UNE EN ISO 10545-14  | 5                   |
|      | CHEMICAL RESISTANCE SWIMMING-<br>POOL | UNE EN ISO 10545-13  | A                   |
|      | BREAKING STRENGTH                     | UNE EN ISO 10545-4:9 | >35 N/MM2           |
|      | FROST RESISTANCE                      | UNE EN ISO 10545-12  | CUMPLE / ACCOMPLISH |
|      | SLIP RESISTANCE                       | UNE-EN 16165 Anexo C | CLASE 2 / CLASS 2   |
|      | SLIP RESISTANCE (DCOF)                | ANSI A326.3          | >0,50               |

## Embalaje / Packing

|                                                                                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |
| 25                                                                               | 17                                                                                | 12.82                                                                             | 28.26                                                                             | 96                                                                                | 0.68                                                                              | 65.28                                                                             |

## Usos / Uses

|                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |  |  |
| ✓                                                                                 | ✓                                                                                 | ✓                                                                                 | ✓                                                                                  | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   | ✓                                                                                   |

C = CONSULTAR / CONSULT

## Characteristics

|                                                                                                                                |                                                                                                                             |                                                                                                                     |                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>NEW</b><br>New                                                                                                              |  <b>Shade variation</b><br>Shade variation |  <b>Matt finish</b><br>Matt finish |  <b>Porcelain</b><br>Porcelain |
|  <b>Graphic variation</b><br>Graphic variation |  <b>Caras</b><br>Faces                     |                                                                                                                     |                                                                                                                   |

## Packaging icon

|                                                                                                                      |                                                                                                                    |                                                                                                                  |                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  <b>Pieza/m2</b><br>Piece/sqm        |  <b>Piezas/caja</b><br>Pieces/box |  <b>Kg/caja</b><br>Kg/box       |  <b>Libras/caja</b><br>Lbs/box |
|  <b>Cajas/pallet</b><br>Boxes/pallet |  <b>M2/caja</b><br>sqm/box        |  <b>M2/pallet</b><br>Sqm/pallet |                                                                                                                   |

## Icons of uses

|                                                                                                                                                                                                                                       |                                                                                                                                                                       |                                                                                                                         |                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|  <b>Outdoor walls</b><br>Outdoor walls                                                                                                               |  <b>Outdoor floors</b><br>Outdoor floors                                            |  <b>Indoor walls</b><br>Indoor walls  |  <b>Indoor floors</b><br>Indoor floors |
|  <b>Commercial flooring</b><br>Commercial flooring                                                                                                  |  <b>Underfloor heating installation</b><br>Underfloor heating installation         |  <b>Shower floor</b><br>Shower floor |  <b>Shower wall</b><br>Shower wall    |
|  <b>Swimming pool (on steps and depth bottoms &lt;1.5m, only C3 products)</b><br>Swimming pool (on steps and depth bottoms <1.5m, only C3 products) |  <b>Walls high vapor condensation areas</b><br>Walls high vapor condensation areas |                                                                                                                         |                                                                                                                            |

## ATTENTION

Carefully follow these instructions to ensure correct installation.

- Installation should be carried out by a qualified professional.
- Before installing ensure that the material is in perfect condition. Make sure you check the colours, finishes and thicknesses because DUNE will not accept any claims or returns of material after it has been installed.
- Before each stage, on one part test all of the materials and tools to be used and evaluate the final finish of the test. Should you fail to achieve the desired results do not continue with the installation, and consult our sales team.
- In public places materials must comply with the slipperiness requirements of the Spanish Technical Building Code.
- This document is purely commercial and may not be used in any legal or administrative proceedings, neither as an expert opinion nor as documentary evidence, unless expressly authorized by DUNE CERÁMICA S.L.

The issued results are informative, the technical specifications of our products may undergo modifications. The information is automatically updated on our website, ensuring that the downloaded datasheet accurately reflects the most recent data.

If you need to know or verify any of these characteristics, we recommend that you download the datasheet at the time of placing your order. Please note that Dune will not accept claims for discrepancies in the information if it has been correctly updated on our website.

# FLOOR AND WALL TILES – CERAMIC

## 1. PROPER PREPARATION OF SURFACE

The wall must be firm, levelled, dry and clean. Uneven surfaces greater than 2 mm must be levelled with specific products. All cracks and imperfections should be repaired, so that the wall is completely smooth. The moisture content of the surface must be under 2%.

## 2. INSTALLATION MATERIAL

For a correct installation, several factors must be taken into account: Material kind of the wall to be tiled (synthetic pannels, plaster, wood, etc.), wall stability, environmental conditions, kind of surface to be covered , speed of carrying the work, etc. All the above parameters determine the choice of the adhesive kind.

All the adhesive materials recommended by DUNE have been previously tested in our facilities, in controlled environmental conditions and on rigid brick and/or concrete walls. Under different conditions from the above mentioned, it is recommended to test firstly and if in doubt, please contact DUNE or the adhesive distributor.

White and Red body wall tile: C1 concrete glue. (Consult adhesives table).

Stoneware and porcelain tile: C2 concrete glue. (Consult adhesives table).

DUNE always recommends to test first the material with minimum two pieces before placing all the material.

## 3. INSTALLATION

We recommend starting the installation from the floor to the ceiling, continue in phase to allow the adhesive the necessary time to get dry. Extend a thin layer of adhesive on to the surface where the piece will be installed (3mm approx.) Then, use a notched trowel no. 3 to make incisions into the adhesive layer. Place the piece while the adhesive is still soft and before a dry layer of film forms on the adhesive surface. To install 30×60 pieces or similar, extend a thin layer of adhesive on the surface where the piece will be installed (vertically) and another layer on the back of the piece itself, in the opposite sense (horizontally). Then, use also a notched trowel no. 3 and make the incisions into both the adhesive layer of the wall and in the opposite sense in the piece. Do not use dot setting or dab the adhesive during installation.

Once the piece is placed, press carefully to obtain correct adhesion and cover possible areas without adhesive. For a better fixing, it is recommended to set the pieces by using some tape or a wooden strip. To correct the position of the bases, it is recommended to take them off and correctly clean their back part before placing them again.

We recommend a minimum joint of 2mm and the use of crosspieces. For areas with severe thermal dilatation or non-stable surfaces (plasterboard), a minimum joint of 3 mm is strongly recommended.

DUNE recommends the use of SELF-LEVELING SPACERS to avoid the appearance of lippage between adjacent pieces.



The placement of a locked joint greater than 25% is not recommended to avoid the appearance of uneven or lippage between adjacent pieces. Claims of material placed on a locked joint greater than 25% will not be accepted.



Models manufactured with LUX resin components should not be installed in areas close to a heat source, such as behind radiators, in saunas, near burners, etc.

## 4. GROUTING

All joints must be perfectly clean and dry and having a minimum depth of 2mm. Use a flat rubber trowel to spread the paste, being sure that the joints are completely covered. Use a wet sponge or neutral PH products – never abrasive products – to wash off immediately the excess of grouting paste from the surface before it dries.

It is very important to do this before the paste dries. If this happens, use a cement remover to clean the surface

For better waterproofing, it is necessary to use an epoxy grouting paste, especially in water areas

Items decorated by pre-cuts, so that it is recommended to follow the lines of those pre-cuts in order to get a correct finish. Make sure that the distance between one sheet and another is the same as the one of pre-cuts, so that all the joints look alike. It is essential to completely grout the pieces to cover the pre-cuts.

Pre-cut models, such as Kit-Kat, Mintons, etc., may have small pores in the grooves that remain completely hidden once grouted, significantly improving the adhesion of the grout.

Consult the grouting materials table.

Important: The colour of the grouting paste might change the product's appearance. We recommend to test with some pieces before grouting the entire surface.

## 5. CLEANING AND MAINTENANCE

For everyday cleaning, use regular cleaners with PH neutral. Do not use abrasive products.

PVD AND DELICATED PRODUCTS: Avoid using abrasive and anti-lime cleaners or steel wool. Preferably use pH neutral cleaning products.

| Tabla de adhesivos / Adhesives Table |                                                 |                                     |                                      |
|--------------------------------------|-------------------------------------------------|-------------------------------------|--------------------------------------|
|                                      | Cemento cola C1<br>C1 concrete glue             | Cemento cola C2<br>C2 concrete glue | Adhesivo epoxidico<br>Epozi adhesive |
| KERAKOLL                             | ESPECIAL ECO                                    | H 40 ECO FLEX                       | SUPERFLEX ECO                        |
| MAPEI                                | TIXOBOND                                        | KERAFLEX MAXI S-1                   | KERALASTIC T                         |
|                                      | Mortero adhesivo látex<br>Latex adhesive mortar |                                     |                                      |
| LATICRETE                            | Mortar 211<br>+ Laticrete 4237                  |                                     |                                      |

| Productos de tratamiento / Tratment products |                |                                                  |                                                    |
|----------------------------------------------|----------------|--------------------------------------------------|----------------------------------------------------|
|                                              | Código<br>Code | Descripción<br>Description                       | Código PHP recomendado<br>Recommended retail price |
| CRISTAL<br>GLASS                             | 185463         | ANTI GLISS                                       | D787                                               |
| PIEDRA<br>STONE                              | 184507         | CERA LIQUIDA PROTECTORA<br>LIQUID PROTECTIVE WAX | D945                                               |
|                                              | 184508         | SELLADOR ANTIMANCHAS<br>STAIN-PROF SEALER        | D969                                               |

| Tabla de pastas de rejuntar / Grouting pastes table |                                                         |                                                    |
|-----------------------------------------------------|---------------------------------------------------------|----------------------------------------------------|
|                                                     | Pasta de rejuntar cementosa<br>Cement grouting material | Pasta de rejuntar epoxi<br>Epoxy grouting material |
| KERAKOLL                                            | FUGABELLA ECO PORCELANA                                 | FUGALITE                                           |
| MAPEI                                               | KERACOLOR FF                                            | KERAPOXY                                           |
| LATICRETE                                           | LATICRETE serie 1600                                    | -                                                  |

