



# Porcelain Pavers Installation Guide

Dear Customer,

This brief installation guide will provide you or the installer with a manual on how to properly install the B&F Ceramics 2 cm Porcelain Pavers. The tips and guide lines listed in this document are recommendations based on typical masonry or installation practices. Consulting your local codes department for their requirements is highly recommended as installation methods may vary from region to region. If you have questions, please feel free to contact us at 540-286-3000 or visit the factories' website [www.florim.com](http://www.florim.com) for more information and tips.

Thank You,  
The B&F Family

# Installing on Gravel or Sand

Best used for Gardens, Courtyards, Patios, Gazebos, Walkways, & More.



- Be sure to even out & level the resting area
- Lay the tile piece on the gravel or sand, allowing a 1 cm or larger gap between each piece
- Use a rubber hammer to eliminate any unevenness
- Use your gravel or sand to fill in the joints and provide better stability to the surface

**WARNING:** Verify that the level of tile is in line with the level of the gravel layer in order to prevent the tile from shifting. This system cannot be installed for vehicle traffic.

# Installing on Grass

Best used for Gardens, Gazebos, Walkways, Perimeter of Pools & More.

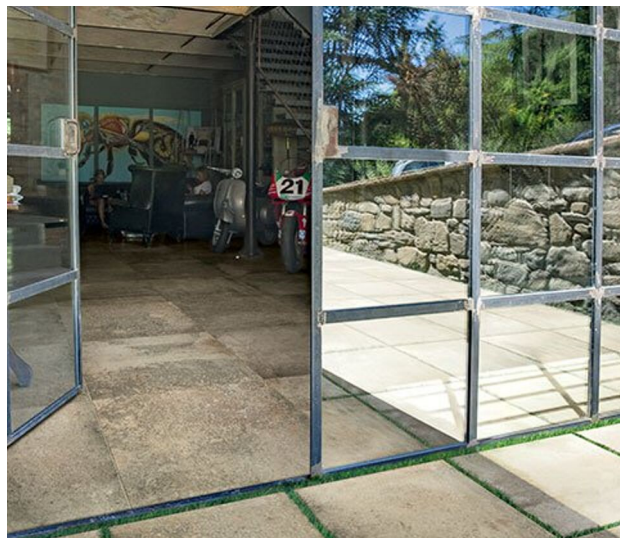


- Remove the soil below the area where the tile piece will be laid, roughly 5-7 cm thick
- In the removed soil area, apply a bed of gravel of 3-4 cm thick, compact the foundation
- Rest the tile piece(s) with at least a 1 cm gap & use a rubber hammer to remove any unevenness

**WARNING:** Ensure that the level of the tile is equal to the level of the grassy surface in order to prevent damage during mowing. This system cannot be installed for vehicle traffic.

# Installing with Thin-Set over Concrete

Best used for Driveways, Garages, Sidewalks, Industrial Areas & More.



Before installing please consult the TCNA Handbook.

- Spread an approved exterior grade thin-set mortar over the concrete using the correct sized notched trowel
- Lay the pavers on the thin-set with minimum 1/8" to 3/16" joint spacing where the area is not large enough to require expansion joints, or with 3/8" spacing where expansion joints are present
- After the thin-set has dried, grout the pavers with an approved exterior grade grout

## Additional Information

- Porcelain Stoneware will not change color or deteriorate over time
- Chemical Resistant. (i.e pool additives, household detergents, etc.)
- Weather Resistant; Rain, Wind, Salt, Mildew, Etc.
- Non-Slip
- Easy to clean
- Will not scratch
- The material can be easily re-positioned or moved if not glued.
- Made in Italy



[www.bfceramics.com](http://www.bfceramics.com)

## 20,00 mm / FINE PORCELAIN STONEWARE

| Reference standard E.N. 14411-ISO 13006 .<br>Appendix G. Group BIa. UGL             |                                                                                                | Test method    | Reference value                                                                                                                                                                                                                                                                                                                   | Declared value                                                        |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|    | Admitted deviation, in %, of the average thickness of each tile from the production dimensions | ISO-10545-2    | ±5% (±0,5 mm)                                                                                                                                                                                                                                                                                                                     | ±5% *                                                                 |
|    | Surface quality                                                                                | ISO-10545-2    | Il 95% min delle piastrelle deve essere esente da difetti visibili / At least 95% of the tiles must be free from visible flaws / 95% min des carreaux ne doivent présenter aucun défaut visible / Mindestens 95% der Fliesen müssen frei von sichtbaren / min. el 95% de las baldosas tiene que estar exento de defectos visibles | CONFORME / CONFORMING / CONFORME / KONFORM / CONFORME / COOTBETCTBYET |
|    | Amount of water absorbed, in percentage                                                        | ISO-10545-3    | E≤0,5%                                                                                                                                                                                                                                                                                                                            | average value 0,08%                                                   |
|    | Breaking strength in N (thickness >= 7,5 mm)                                                   | ISO-10545-4    | ≥1300 Newton                                                                                                                                                                                                                                                                                                                      | average value 14000 N                                                 |
|   | Bending strength in N/mm2                                                                      | ISO-10545-4    | >35 N/mm2                                                                                                                                                                                                                                                                                                                         | average value 52 N/mm2                                                |
|  | Resistance to deep abrasion of unglazed tiles                                                  | ISO-10545-6    | <175 mm3                                                                                                                                                                                                                                                                                                                          | average value 140 mm3                                                 |
|  | Thermal shock resistance                                                                       | ISO-10545-9    | -                                                                                                                                                                                                                                                                                                                                 | RESISTE / RESISTANT / RÉSISTE / ERFÜLLT / RESISTE / УСТОЙЧИВ          |
|  | Resistance to staining                                                                         | ISO-10545-14   | -                                                                                                                                                                                                                                                                                                                                 | Cl. 3-4                                                               |
|  | Resistance to domestic chemicals and additives for swimming pools                              | ISO-10545-13   | UB minimo / UB minimum / UB minimum / UB mindestens / UB minimo                                                                                                                                                                                                                                                                   | UA                                                                    |
|  | Resistance to high concentrations of acids and alkali                                          | ISO-10545-13   | Come dichiarato dal produttore / See manufacturer's declaration / Selon déclaration du producteur / Entsprechend der Herstellerangaben / Tal como declara el fabricante                                                                                                                                                           | UHA                                                                   |
|  | Resistance to low concentrations of acids and alkali                                           | ISO-10545-13   | Come dichiarato dal produttore / See manufacturer's declaration / Selon déclaration du producteur / Entsprechend der Herstellerangaben / Tal como declara el fabricante                                                                                                                                                           | ULA                                                                   |
|  | Slip resistance with shoes                                                                     | DIN-51130:2010 | -                                                                                                                                                                                                                                                                                                                                 | R11<br>SLATE-HAMMERED                                                 |

|                                                                                   |                                                                                                             |              |                                                                           |                                                                 |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------|-----------------------------------------------------------------|
|  | Dynamic coefficient of friction (section 9.6 ANSI A 137.1 2012)                                             | DCOF         | >0,42 wet                                                                 | >0,42 wet<br>SLATE-HAMMERED                                     |
|  | Frost resistance                                                                                            | ISO-10545-12 | Richiesta / Required / Requise / Gefordert / Requerida                    | RESISTE / RESISTANT / RÉSISTE /<br>ERFÜLLT / RESISTE / УСТОЙЧИВ |
|  | Barefoot slip resistance                                                                                    | DIN-51097    | -                                                                         | Cl. A+B+C<br>SLATE-HAMMERED                                     |
|  | Length and width: admitted deviation, in %, of the average size of each tile from the production dimensions | ISO10545-2   | ±0,5% (±2 mm)                                                             | ± 0,15% *                                                       |
|  | Maximum right-angle deviation, in %, in relation to the corresponding production dimensions                 | ISO10545-2   | ±0,3% (±1,5 mm)                                                           | ±0,2% *                                                         |
|  | Maximum straightness deviation, in %, in relation to the corresponding production dimensions                | ISO10545-2   | ±0,3% (±1,5 mm)                                                           | ±0,1% *                                                         |
|  | Flatness (centre curvature / edge curvature / warpage)                                                      | ISO10545-2   | +0,5% -0,3% (+2mm, -1,5 mm) / +0,5% -0,3% (+2mm, -1,5 mm) / ±0,5% (± 2mm) | ± 0,35%                                                         |

#### Notes:

\*Standards not applicable to 20,2x20,2 and 20,2x30,4 sizes for characteristic irregular shaped borders

Ceramic tiles undergo a compacting thermal treatment that ensures resistance and durability. The low level of water absorption makes the slabs frost resistant. This could result in superficial water stagnations even if materials are installed in a workmanlike manner.

Calibration of this product is not exact; please consider a 3 to 7 mm joint.

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# FLORIM

Floor Gres / Airtech

## 10,00 mm / FINE PORCELAIN STONEWARE

|                                                                                     | Reference standard E.N. 14411-ISO 13006 .<br>Appendix G. Group BIa. UGL                                     | Test method | Reference value                                                                                                                                                                                                                                                                                                                   | Declared value                                                              |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
|  | Flatness (centre curvature / edge curvature / warpage)                                                      | ISO-10545-2 | Squadrato ISO 13006 - ±0,4% (±1,8 mm)                                                                                                                                                                                                                                                                                             | ± 0,35%                                                                     |
|  | Surface quality                                                                                             | ISO-10545-2 | Il 95% min delle piastrelle deve essere esente da difetti visibili / At least 95% of the tiles must be free from visible flaws / 95% min des carreaux ne doivent présenter aucun défaut visible / Mindestens 95% der Fliesen müssen frei von sichtbaren / min. el 95% de las baldosas tiene que estar exento de defectos visibles | CONFORME / CONFORMING /<br>CONFORME / KONFORM / CONFORME<br>/ COOTBETCTBYET |
|  | Length and width: admitted deviation, in %, of the average size of each tile from the production dimensions | ISO-10545-2 | Squadrato ISO 13006 - ±0,3% (±1 mm)                                                                                                                                                                                                                                                                                               | ± 0,15%                                                                     |
|  | Admitted deviation, in %, of the average thickness of each tile from the production dimensions              | ISO-10545-2 | ±5% (±0,5 mm)                                                                                                                                                                                                                                                                                                                     | ±5%                                                                         |

|                                                                                     |                                                                                              |                |                                                                                                                                                                         |                                                                 |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
|    | Maximum straightness deviation, in %, in relation to the corresponding production dimensions | ISO-10545-2    | Squadrato ISO 13006 - $\pm 0,3\%$ ( $\pm 0,8$ mm)                                                                                                                       | $\pm 0,1\%$                                                     |
|    | Maximum right-angle deviation, in %, in relation to the corresponding production dimensions  | ISO-10545-2    | Squadrato ISO 13006 - $\pm 0,3\%$ ( $\pm 1,5$ mm)                                                                                                                       | $\pm 0,2\%$                                                     |
|    | Amount of water absorbed, in percentage                                                      | ISO-10545-3    | $E \leq 0,5\%$                                                                                                                                                          | average value 0,08%                                             |
|    | Breaking strength in N (thickness $\geq 7,5$ mm)                                             | ISO-10545-4    | $\geq 1300$ Newton                                                                                                                                                      | average value 3200 N                                            |
|    | Bending strength in N/mm <sup>2</sup>                                                        | ISO-10545-4    | $> 35$ N/mm <sup>2</sup>                                                                                                                                                | average value 50 N/mm <sup>2</sup>                              |
|    | Resistance to deep abrasion of unglazed tiles                                                | ISO-10545-6    | $< 175$ mm <sup>3</sup>                                                                                                                                                 | average value 140 mm <sup>3</sup>                               |
|   | Thermal shock resistance                                                                     | ISO-10545-9    | -                                                                                                                                                                       | RESISTE / RESISTANT / RÉSISTE /<br>ERFÜLLT / RESISTE / УСТОЙЧИВ |
|  | Resistance to staining                                                                       | ISO-10545-14   | -                                                                                                                                                                       | Cl. 4<br>HIGH-GLOSSY                                            |
|  | Resistance to staining                                                                       | ISO-10545-14   | -                                                                                                                                                                       | Cl. 4-5<br>MATTE                                                |
|  | Resistance to staining                                                                       | ISO-10545-14   | -                                                                                                                                                                       | Cl. 4<br>SLATE-HAMMERED                                         |
|  | Resistance to low concentrations of acids and alkali                                         | ISO-10545-13   | Come dichiarato dal produttore / See manufacturer's declaration / Selon déclaration du producteur / Entsprechend der Herstellerangaben / Tal como declara el fabricante | ULA<br>MATTE                                                    |
|  | Resistance to domestic chemicals and additives for swimming pools                            | ISO-10545-13   | UB minimo / UB minimum / UB minimum / UB mindestens / UB minimo                                                                                                         | UA                                                              |
|  | Resistance to low concentrations of acids and alkali                                         | ISO-10545-13   | Come dichiarato dal produttore / See manufacturer's declaration / Selon déclaration du producteur / Entsprechend der Herstellerangaben / Tal como declara el fabricante | ULA<br>SLATE-HAMMERED                                           |
|  | Resistance to low concentrations of acids and alkali                                         | ISO-10545-13   | Come dichiarato dal produttore / See manufacturer's declaration / Selon déclaration du producteur / Entsprechend der Herstellerangaben / Tal como declara el fabricante | ULB<br>HIGH-GLOSSY                                              |
|  | Slip resistance with shoes                                                                   | DIN-51130:2010 | -                                                                                                                                                                       | R11<br>SLATE-HAMMERED                                           |



|                                                                                   |                                                                 |                |                                                          |                                                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------|----------------------------------------------------------|-----------------------------------------------------------------|
|  | Slip resistance with shoes                                      | DIN-51130:2010 | -                                                        | R9<br>MATTE                                                     |
|  | Dynamic coefficient of friction (section 9.6 ANSI A 137.1 2012) | DCOF           | >0,42 wet                                                | >0,42 wet<br>SLATE-HAMMERED                                     |
|  | Dynamic coefficient of friction (section 9.6 ANSI A 137.1 2012) | DCOF           | >0,42 wet                                                | >0,42 wet<br>MATTE                                              |
|  | Frost resistance                                                | ISO-10545-12   | Richiesta / Required / Requisite / Gefordert / Requerida | RESISTE / RESISTANT / RÉSISTE /<br>ERFÜLLT / RESISTE / УСТОЙЧИВ |
|  | Barefoot slip resistance                                        | DIN-51097      | -                                                        | Cl. A+B+C<br>SLATE-HAMMERED                                     |
|  | Barefoot slip resistance                                        | DIN-51097      | -                                                        | Cl. A+B<br>MATTE                                                |

**Notes:**

For optimal installation results, Florim recommends maintaining a joint of 2 mm 1/12" for single format installations and 3 mm 1/8" to combine mixed formats.

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