Stylish, low maintenance, stain resistant, wear resistant alternative to concrete pavers

Single slab porcelain pavers offer an exceptional paving solution where high stain resistance, scratch resistance, fade resistance, frost resistance and low maintenance are important. At just 3/4" thick, they are much lighter and easier to transport and install than concrete pavers, are completely non-combustible unlike wood pavers, but are specifically engineered for structural load bearing applications, including elevated decks supported by adjustable height pedestals.

Single slab pavers can be laid directly on sand or gravel beds or over existing hard surfaces such as concrete. No thinset or grout is required. Instead, low cost, ½” high support pads are placed under each corner of the pavers to prevent any rocking due to irregularities of the surface.

Due to modern digital printing technology, single slab porcelain pavers are available in an exceptionally wide range of colors and styles, including wood look, simulated stone such sandstone, slate, quarzite, basalt and concrete.

Most colors are normally available ex stock, although the quantity available is subject to change at any time. If not in stock, the lead time is typically 5-6 weeks.

The standard paver size is 24” x 24” (nom.) and 3/4” thickness but selected colors are also available in 48” x 24” and 48” x 16”.

We recommend the use of Eterno adjustable pedestal system for elevated deck applications. Eterno pedestals feature an inbuilt soft rubber head, inbuilt spacer tabs, a self levelling head providing slope compensation up to 5 degrees and the ability to make fine height adjustment after installation using a special adjustment key.
Tex Brown
Colors - Single Slab Porcelain Pavers

Porcelain Pavers

Moon Stone

Cream Stone
Tex Grey

Tex Brown

Tex Ivory
Timber Teak

Timber Ipê
Specifications

Although all Kronos porcelain pavers item share the same features of exceptionally low water absorption, stain resistance, frost resistance, fade resistance, scuff resistance, fire resistance, etc., technical specifications will vary slightly between colors.

A chart summarizing the main technical specification for each paver color including static load, breaking strength, water absorption is available.

It should be noted that to date, no industry standards specifically relating to raised floors for outdoor use currently exists. At the moment, the only available standard are EN 12825 "raised floors" dated August 2001 in which the specific field of application and purpose refers to "raised floors mainly used in indoor applications" and EN1339 Concrete raised floor for outdoor application. Nevertheless, Kronos provide test results on testing conducted under this standard.

In this test EN 12825, adjustable height pedestals are placed under each of the four corners of a paver and a steadily increasing load is applied until failure of the paver occurs. The pressure is applied using a 25mm steel cube and repeated four times at three different positions:

- at the center of the weakest edge (where this can be identified)
- at the center of the paver
- at a diagonal 70 mm from the edge of a pedestal head

In the test EN1339 the pressure is applied using a 30 mm steel bar in the middle of the pavers.

The Kronos Porcelain Pavers are rectified, meaning that they have had all sides mechanically finished after firing to achieve a precise dimension.

Wind Uplift

When Kronos Porcelain pavers single slab are installed on a pedestal system, they essentially rely on gravity, tight spacing between the pavers and tight containment around the perimeter to keep the pavers in place without movement. The open joint space between pavers allows wind to flow above, below and around the deck surface, which tends to reduce uplift forces somewhat and restricts movement of the pavers.

It should not however be inferred that uplifting of the pavers by wind will never occur as it is difficult, if not impossible, to test for every contingency or circumstance where wind uplift may be possible.

The Saffir-Simpson Hurricane Wind Scale defines wind speeds over 74 mph to be hurricane velocity, where for example it is stated that a Category 1 (74-95mph) storm means: 'Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters.' Furthermore, It is generally accepted that the average person standing on the open ground will be rocked around at wind speeds of 35-
40mph; it's difficult to stand up and you would stumble frequently.

The only wind uplift test for roofing products known to Kronos is the Florida Building Code 2007 TAS 108 Test Procedure for testing air permeable rigid discontinuous roof systems. Whilst this test procedure may have some relevance to pavers installed in ‘floating’ deck applications, Kronos engaged the Florida International University International Hurricane Research Center to devise a series of tests to evaluate the resistance of porcelain pavers to wind uplift using the FIU’s Wall of Wind facility. Variables incorporated in the test program included different wind angles, pedestal height and type, parapet wall height, paver layout and the use of locking devices along the parapet walls.

This report is intended to provide additional information about wind uplift where ¾” single slab porcelain pavers as supplied by Kronos are installed on fixed or adjustable height pedestals. It should not be construed as a guarantee or warranty of any kind, including but not limited to warranties of merchantability or fitness of porcelain pavers for a specific purpose. None of the information contained in this report is intended to substitute for the engineer’s, specifier’s, architect’s, builder’s or contractor’s own analysis, investigation, and due diligence regarding the appropriate choice, application and installation of ¾” single slab porcelain pavers on fixed or adjustable height pedestals in any particular location or application, which is not the responsibility of Kronos.

The test report is available on request from Kronos on the strict understanding that it is provided for the exclusive use of the recipient. No reproduction or transmission by facsimile, email or other electronic means is permitted without Kronos specific permission.

Solar Reflectance Index (SRI)

The following data for the Kronos range of pavers will give some indication of the SRI values than can be expected based on the color of the pavers.

<table>
<thead>
<tr>
<th>Porcelain Pavers</th>
<th>Color</th>
<th>Solar Reflectance</th>
<th>(R) Thermal Emittance</th>
<th>(E) SRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tex Ivory</td>
<td></td>
<td>0.71</td>
<td>0.91</td>
<td>87</td>
</tr>
<tr>
<td>Timber Teak / Cream Stone</td>
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<td>0.90</td>
<td>60</td>
</tr>
<tr>
<td>Tex Brown / Tex Grey</td>
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<td>0.90</td>
<td>52</td>
</tr>
<tr>
<td>Moon Stone / Timber Ipè</td>
<td></td>
<td>0.32</td>
<td>0.90</td>
<td>34</td>
</tr>
</tbody>
</table>