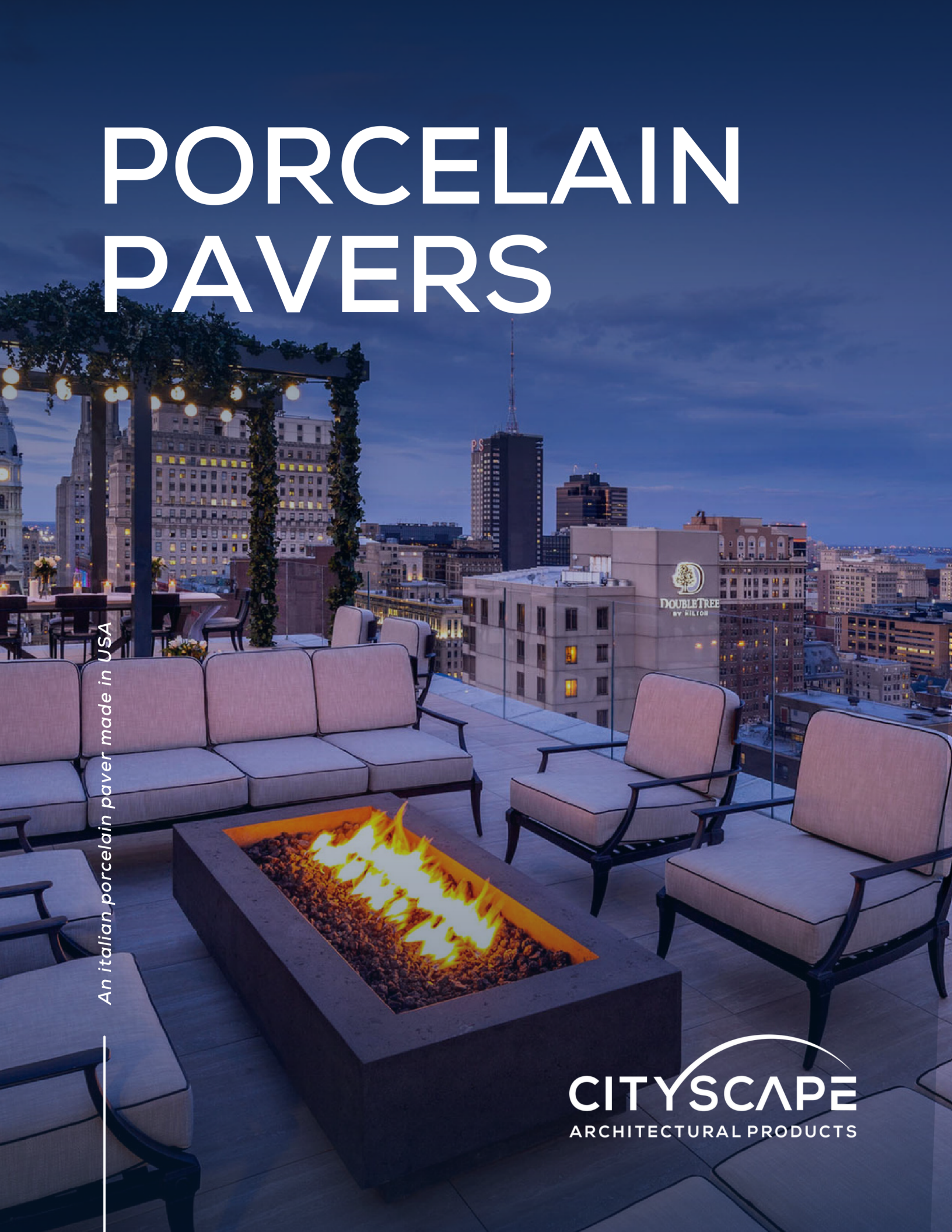
PORCELAIN PAVERS



An italian porcelain paver made in USA

CITYSCAPE
ARCHITECTURAL PRODUCTS

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Cityscape Architectural Products

851 Duportail Road
Chesterbrook, PA 19087
www.cityscapeproducts.com

RE-QUALIFY SYSTEM

Re-Qualify System is the Cityscape innovative approach to the Green and Eco-Sustainability.
Re-Qualify System is the new philosophy of Cityscape, an original approach with the aim to minimize the environmental impact in renovation or new construction projects realized by:

- reducing or full eliminating the use of adhesives and setting materials;
- reducing or fully eliminating the use of water;
- reducing or fully eliminating any waste resulting from the production cycle.

All the above for a more environmental awareness production cycle and consequently, significant results of both energy and economic savings.

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CITYSCAPE GREEN APPROACH

CO2 REDUCTION
In the last 10 years Cityscape has reduced its CO2 emissions by no less than 17%. New investments for a further reduction are planned, using techniques for reutilizing heat generated during the production process and creating energy by cogeneration.

GREEN ENERGY
Cityscape uses Green Energy. All electricity used at Cityscape plants is obtained from cogeneration and hydroelectric power station.

RECYCLING PROCESS: ZERO WASTE
Cityscape tiles are produced following a specific process that allows the addition of recycle content to the layer body of the tiles. This makes possible for Cityscape to use pre-and-post consumer waste to create a body layer and thus a high quality tile.
Cityscape tiles and slabs consist of 35% recycled material, depending on the product.
The pre-consumer recycling system is 100%.
Post-consumer recycling is under study and some preliminary trials should start shortly.

LOCAL RAW MATERIALS
Cityscape obtains most of its natural raw materials for tile production in the american territory.
All the raw materials come from a radius of 800 Km/ 500 MI from the production plants.

H20 MANAGEMENT AND PURIFICATION
All waste-water is reused through the manufacturing process, this is already 100%.

RECYCLED/RECYCLABLE PACKING MATERIAL
All our paper packaging materials are made from recycled paper and are further recyclable.
Cityscape uses "Heat treatment certified pallets" that are disinfected by heat and not by poisonous gas.

LIFE CYCLE ASSESSMENT
The Life Cycle Assessment (LCA) is also known as an "eco-balance" or cradle-to-grave-analysis and it's the investigation and evaluation of the environmental impact of a given product or service caused or necessitated by its existence.
Cityscape tiles and slabs have a very long-life cycle. From a technical point of view, Cityscape tiles and slabs may be used for many hundreds of years without losing their looks or their technical quality.
Innovation and design play a major role at Cityscape.
Cityscape has developed specific systems to install its Porcelain Pavers without cement, glues, mortar or other setting materials both on floors and walls. It is no longer necessary to grout the joint line between Cityscape Porcelain Pavers as our products can be dry settled.
The elimination of setting materials allows significant savings in terms of costs of transportation and time for the installation.
The job sites are immediately available after the Cityscape Porcelain Pavers are dry installed, while the use of traditional setting materials requests time and cure after the collocation. Cityscape Porcelain Pavers dry installation also significantly reduces the creation of dusts and pollutants. People living in spaces where the Cityscape Porcelain Pavers are laid, are less prone to allergies and respiratory problems that may be caused by breathing residual dusts and moisture caused by traditional settings methods.

INTENDED USES

Cityscape Porcelain are produced with high aesthetic and technical characteristics, adaptable and functional for any outdoor environment.

COMMERCIAL AREAS:
Plazas, roof terraces, decks, swimming-pools, beach resorts, walkways, pathways, events and exhibitions, parking lots, etc...

RESIDENCIAL AREAS:
Patios, terraces, gazebos, swimming-pools, oriental gardens, stairs, rooftop, car parks, etc...

LEED CREDITS 2CM

Cityscape 2CM Porcelain Pavers are produced in the U.S., the manufacturing plants are located in Tennessee. The factory is member of the U.S. Green Building Council, which is an organization that promotes buildings that are environmentally responsible, profitable and healthy places to live and work.

RECYCLED CONTENT, MR Credit 4.1 and 4.2 (2 LEED points)
Cityscape USA products are produced with 35% of pre-consumer recycled materials.

REGIONAL MATERIALS, MR Credit 5.2 (2 LEED points are granted if the use of local raw material is equal to 20% of the total value of the raw materials).
These Credits are applicable for buildings constructed within 500 miles (804.5 km) from the factory.
The 49% of whole Cityscape USA raw materials are quarried in the 500 miles radius. Therefore Cityscape USA products contribute for 49% of their value to the LEED Credits of this Section.

HEAT ISLAND EFFECT (Non roof), SS Credit 7.1 (1 LEED point)
The great majority of Cityscape USA products do not contribute to change the energy balance of the environments where installed. They do not produce any Urban Heat Island Effect, thanks to its very good physical properties Solar Reflectance Index SRI ≥ 29.

LOW EMITTING MATERIALS, EQ Credit 4.2 (1 LEED point)
No traces of VOC (Volatile Organic Compounds) are present in Cityscape USA tiles (as certified by the external labs in charge of the tests).

INNOVATION IN DESIGN, ID Credit 1.1-1.4 (1-4 LEED points)
Cityscape USA tiles are produced in manufacturing plans which have got the prestigious ecological mark ECOLABEL (EU Regulation 2002/272/EC).
These plants vant the environmental management systems compliant to ISO 14001:2004 and EMAS (European Council Regulation 761/2001).
These environmental standards guarantee excellence in terms of:

- safeguard of the environment;
- continuous improvement of the environmental performances of Cityscape USA products and manufacturing sites;
- healthcare of Cityscape Usa workers and customers.

WHY CHOOSE CITYSCAPE PORCELAIN?

- Lighter and easier to handle than concrete blocks
- Superior in fire resistance and durability to wood tiles
- Superior in strength and impact resistance to ceramic tiles
- Supports over 2000lb
- More cost effective than grating or grid structures for elevated paving installations
- Resistant to damage by frost, snow, ice and heat (-40°f - 210°f)
- Removable and reusable
- Available in a broad range of colors/styles
- Installation on single ply membranes
- Massive over life cost savings
- Inspectable and removable
- Easy to install
- Easy to clean stain, chemical and salt resistant
- Fade resistant
- Slip resistant and quick draining
- Virtually no maintenance
- Thermal insulation (hot/cold)
- The slight gap between gres slabs allows a quick water drainage
- Best acoustic
- Insulation
- It allows for planar and uniform surfaces with no uneven levels or visible water drainage systems (grids or water discharge pipes).
- Less load bearing in attics and on balconies as the last layer of concrete and glue is not necessary

PESCARA SERIES | Linen

CROSS CUT

¾" thickness

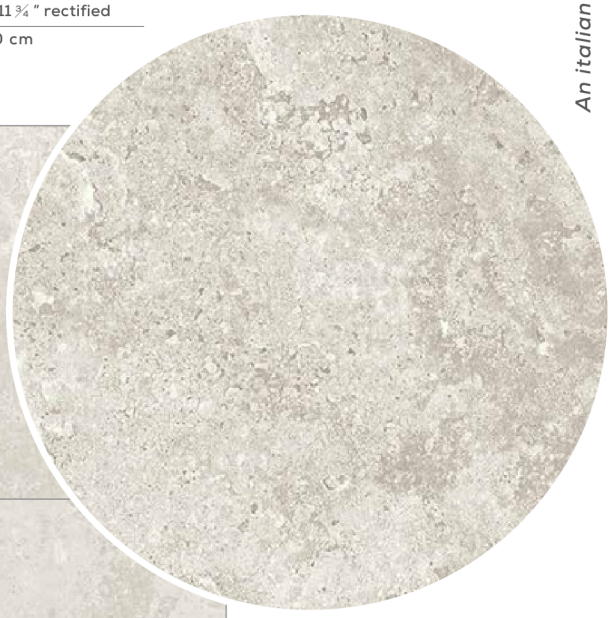
V3
moderate
variation

CSP210
23⅛"x47⅛" rectified
60x120 cm

CSP201
23⅛"X 23⅛" rectified
60x60 cm

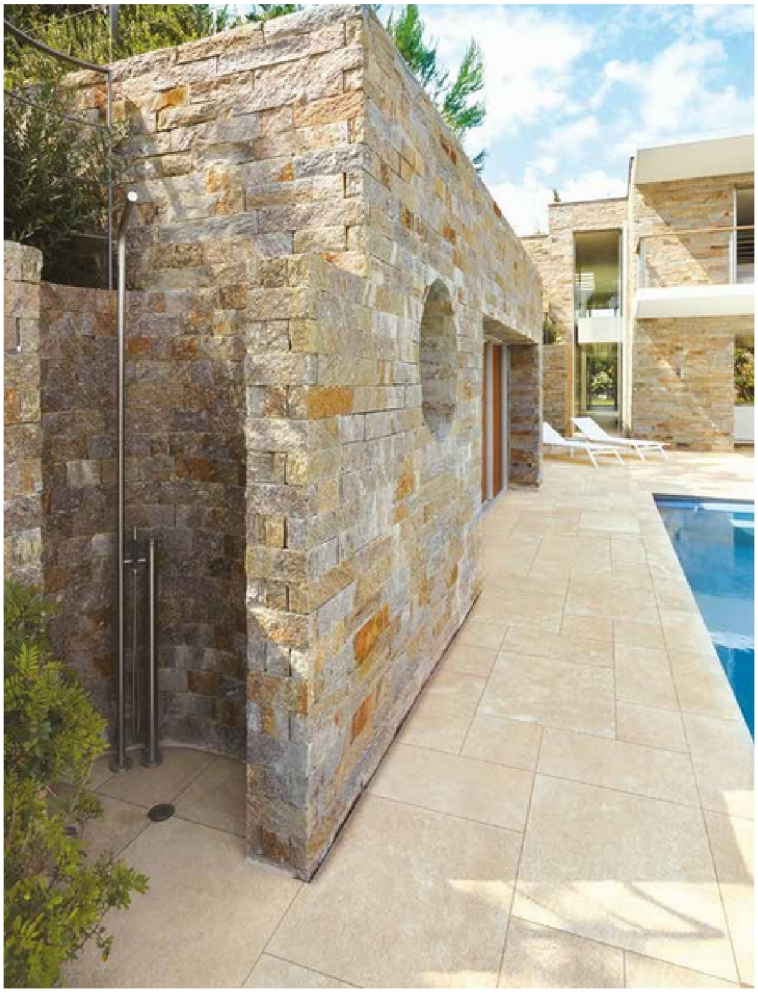
CSP204
11¾"X 23⅛" rectified
30x60 cm

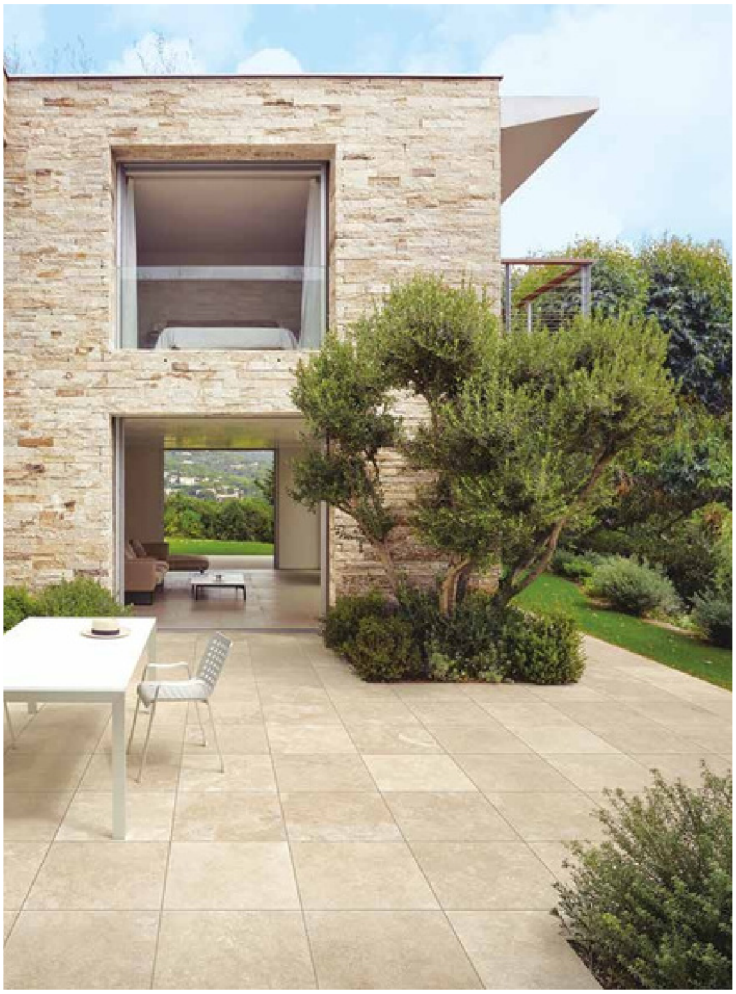
CSP207
11¾"x11¾" rectified
30x30 cm



PESCARA SERIES | Cotton Creama

CROSS CUT





¾" thickness

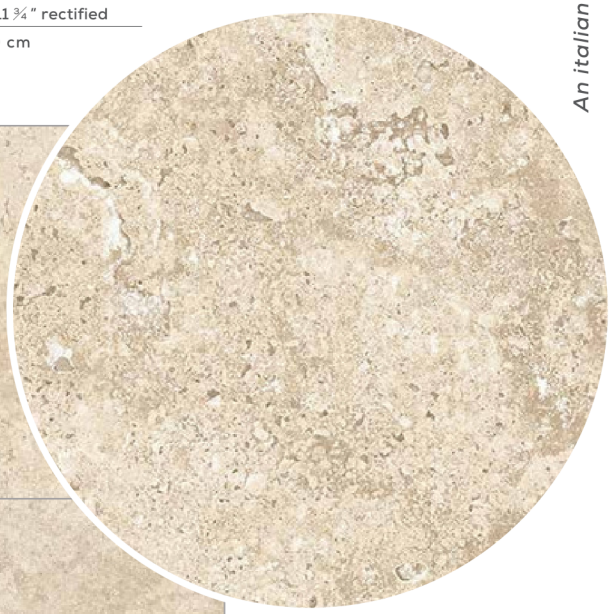
V3
moderate
variation

CSP211
23⅓"x47⅛" rectified
60x120 cm

CPS202
23⅓"X 23⅓" rectified
60x60 cm

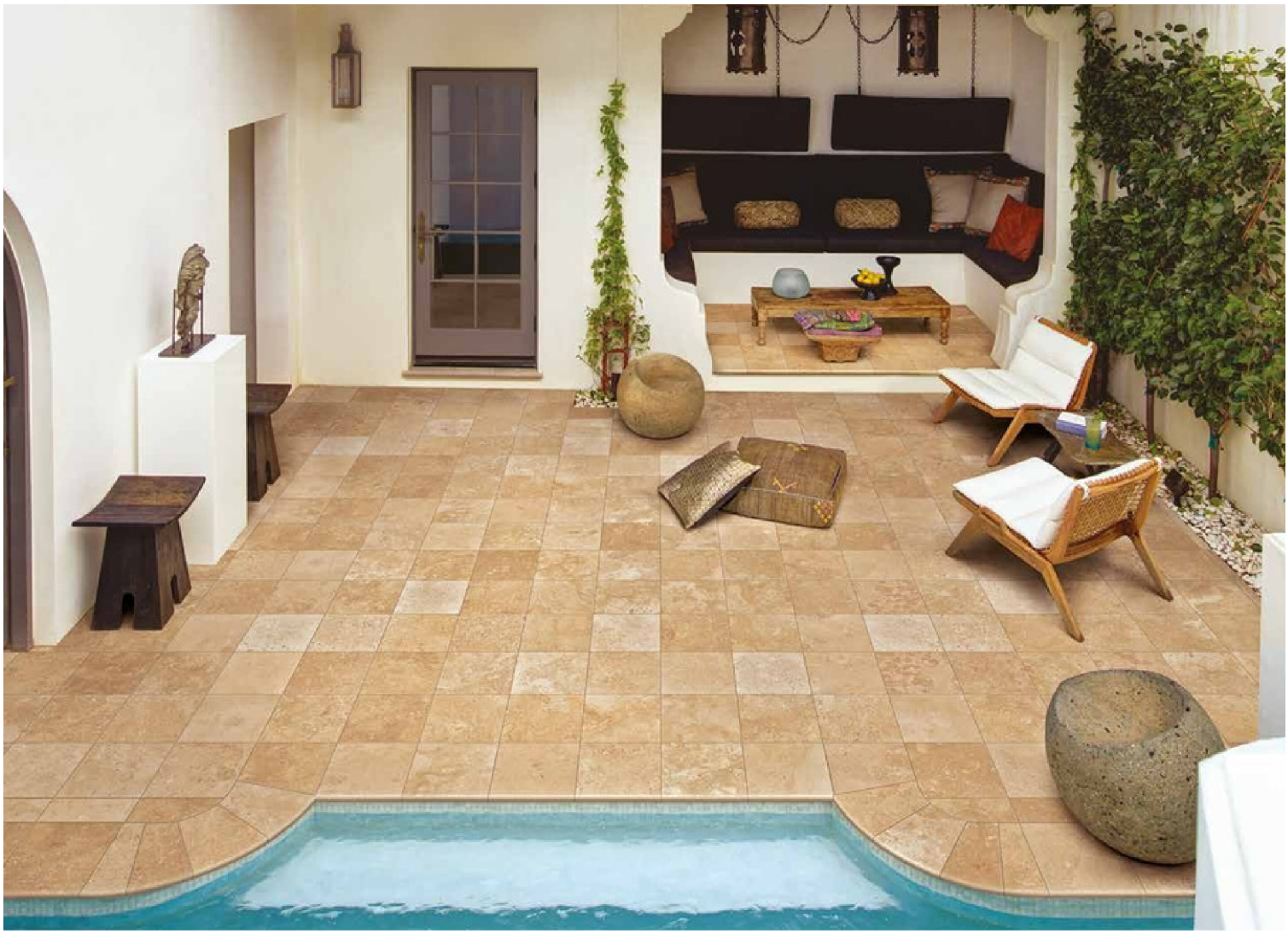
CSP205
11¾"X 23⅓" rectified
30x60 cm

CSP208
11¾"x11¾" rectified
30x30 cm



PESCARA SERIES | Rustic Almond

CROSS CUT



¾" thickness

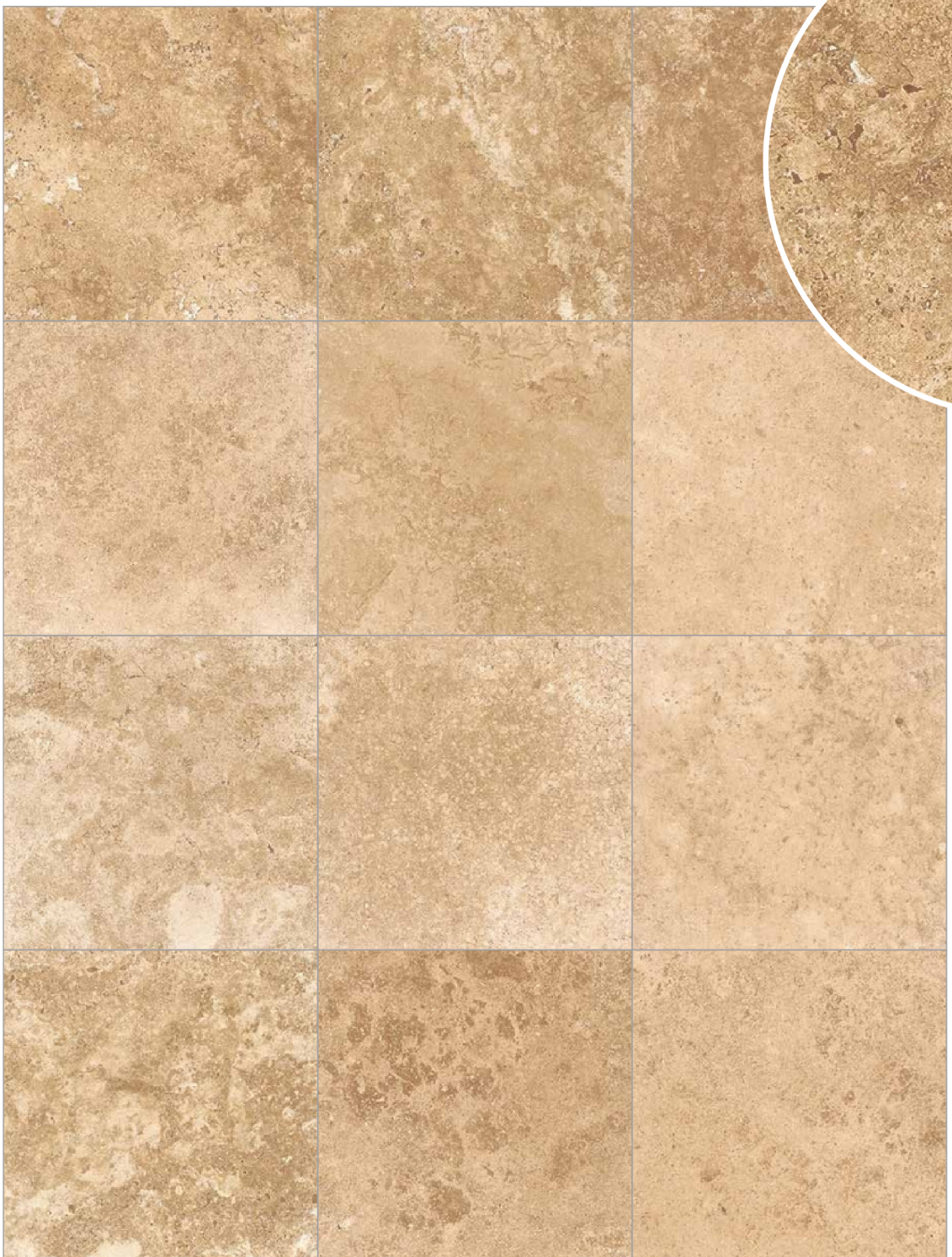
V3
moderate
variation

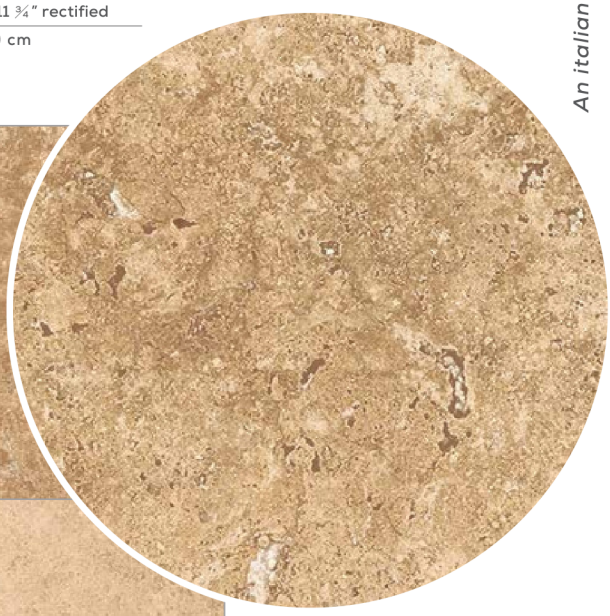
CSP212
23 ⅛"x47 ⅛" rectified
60x120 cm

CSP203
23 ⅛"X 23 ⅛" rectified
60x60 cm

CSP206
11 ¾"X 23 ⅛" rectified
30x60 cm

CSP209
11 ¾"x11 ¾" rectified
30x30 cm





POMPEII SERIES | Graphite

CROSS CUT

¾" thickness

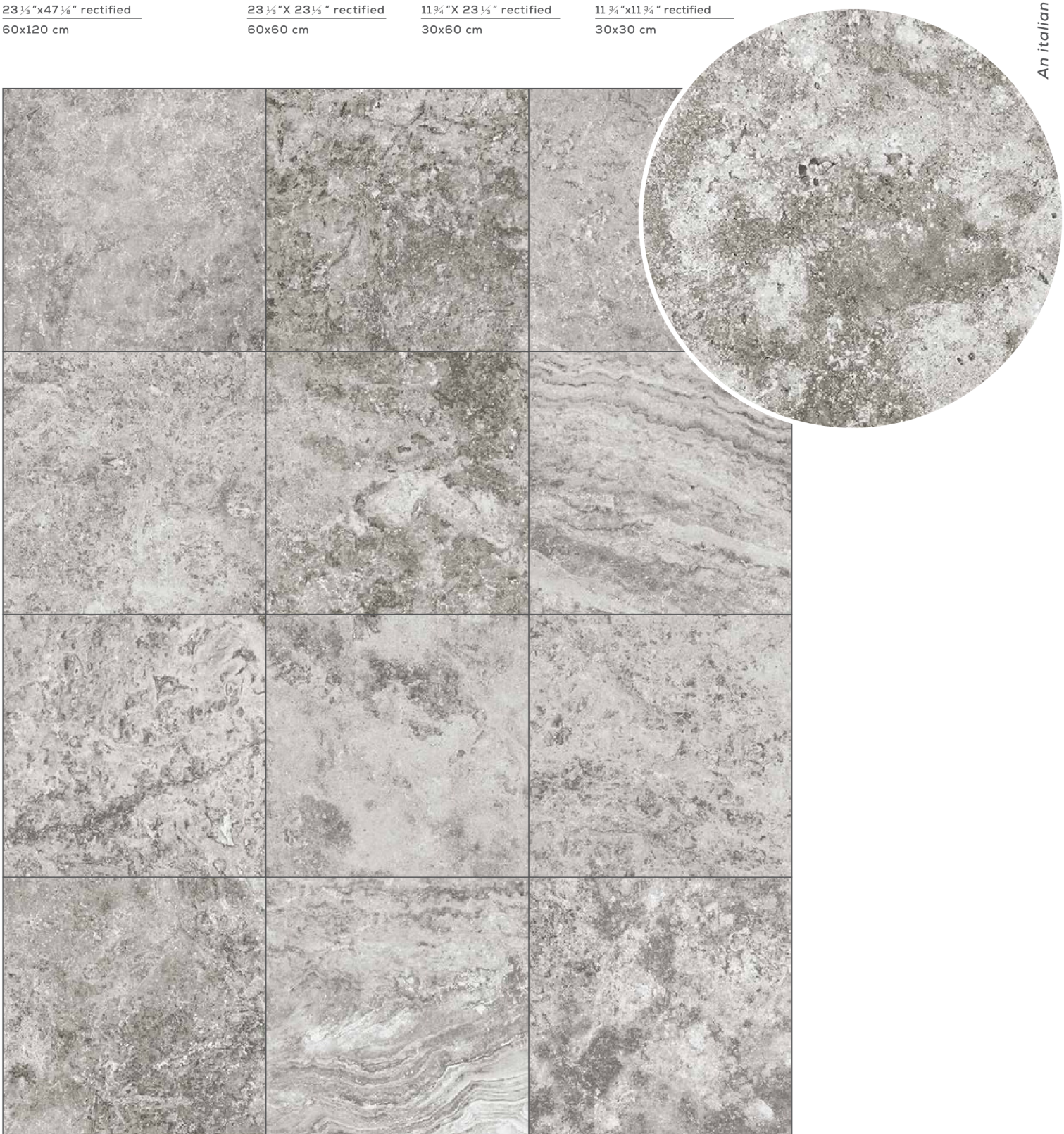
V4
substantial
variation

CSP310
23 ⅓"x47 ⅛" rectified
60x120 cm

CSP301
23 ⅓"X 23⅓ " rectified
60x60 cm

CSP304
11¾"X 23 ⅓" rectified
30x60 cm

CSP307
11 ¾"x11 ¾ " rectified
30x30 cm



POMPEII SERIES | Dusty Iron

CROSS CUT

¾" thickness

V4
substantial
variation

CSP311
23⅛"x47⅛" rectified
60x120 cm

CSP302
23⅛"X 23⅛" rectified
60x60 cm

CSP305
11¾"X 23⅛" rectified
30x60 cm

CSP308
11¾"x11¾" rectified
30x30 cm

POMPEII SERIES | Desert Sand

CROSS CUT

¾" thickness

V4
substantial
variation

CSP312
23 ⅛"x47 ⅛" rectified
60x120 cm

CSP303
23 ⅛"X 23 ⅛" rectified
60x60 cm

CSP306
11 ¾"X 23 ⅛" rectified
30x60 cm

CSP309
11 ¾"x11 ¾" rectified
30x30 cm

CITYLINE TRAVERTINE | Pacific Pearl

VEIN CUT
ITALIAN

¾" thickness

V2
slight
variation

CSP405
23 ⅛"x47 ⅛" rectified
60x120 cm

CSP401
23 ⅛"X 23 ⅛" rectified
60x60 cm

CSP403
11 ¾"X 23 ⅛" rectified
30x60 cm

CITYLINE TRAVERTINE | Golden Oat

VEIN CUT
ITALIAN

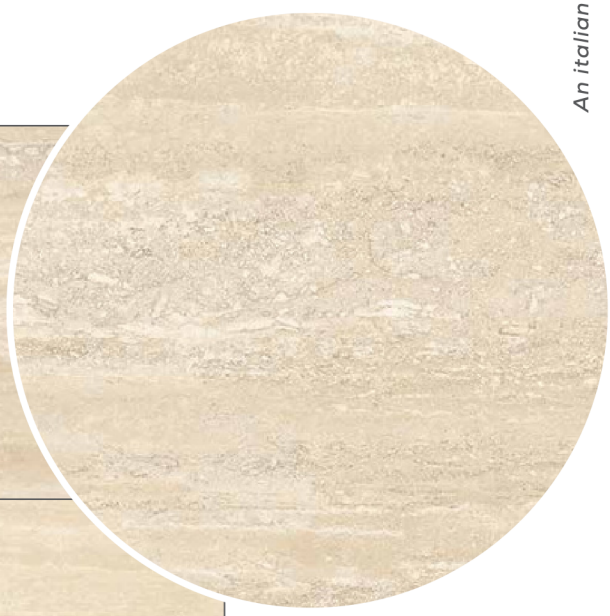
¾" thickness

V2
slight
variation

CSP406
23 ⅛"x47 ⅛" rectified
60x120 cm

CSP402
23 ⅛"X 23 ⅛" rectified
60x60 cm

CSP404
11 ¾"X 23 ⅛" rectified
30x60 cm

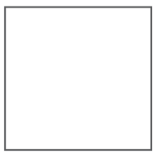


PA BLUESTONE | Full Color

¾" thickness

V4
substantial
variation

CSP509
23 ⅓"x47 ⅛" rectified
60x120 cm



CSP501
23 ⅓"X 23 ⅓" rectified
60x60 cm

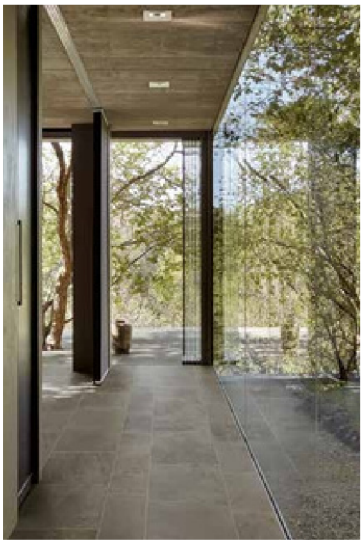
CSP503
11 ¾"X 23 ⅓" rectified
30x60 cm

CSP505
11 ¾"x11 ¾" rectified
30x30 cm

CSP507
11 ¾"x47 ⅛" rectified
30x120 cm

Cleft Pattern

PA BLUESTONE | Blue Select



¾" thickness

V3
moderate
variation

CSP510
23 ⅛"x47 ⅛" rectified
60x120 cm

CSP502
23 ⅛"X 23 ⅛" rectified
60x60 cm

CSP504
11¾ "X 23 ⅛" rectified
30x60 cm

CSP506
11 ¾ "x11 ¾" rectified
30x30 cm

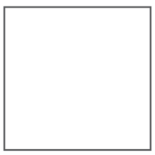
CSP508
11 ¾ "x47 ⅛" rectified
30x120 cm

Thermal Pattern

MOUNTAIN SERIES | Fossil

¾" thickness

V2
slight
variation



CSP601
23 ⅛"X 23 ⅛" rectified
60x60 cm

CSP604
11 ¾"X 23 ⅛" rectified
30x60 cm

MOUNTAIN SERIES | Summer Wheat

¾" thickness

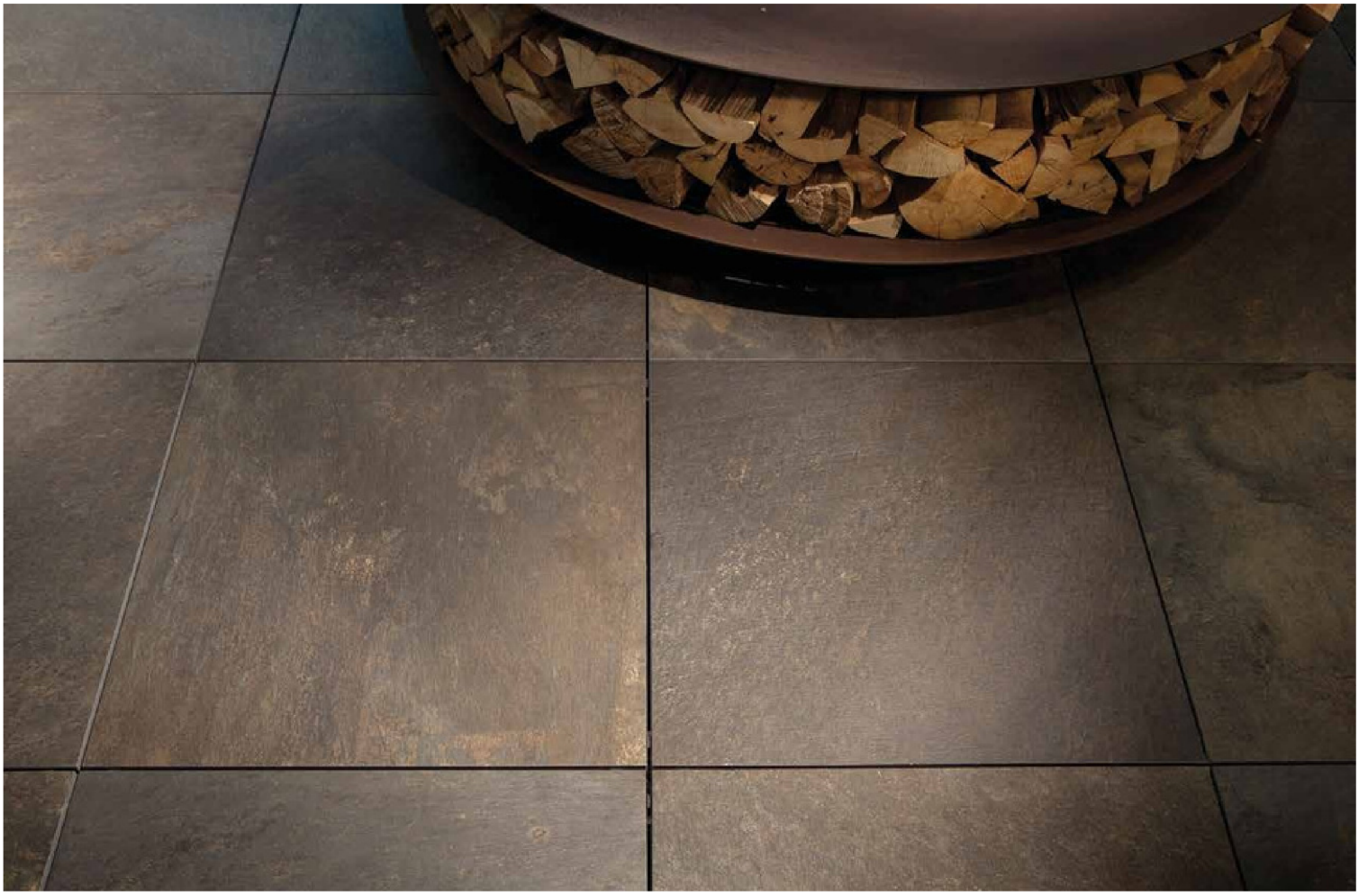
V2
slight
variation

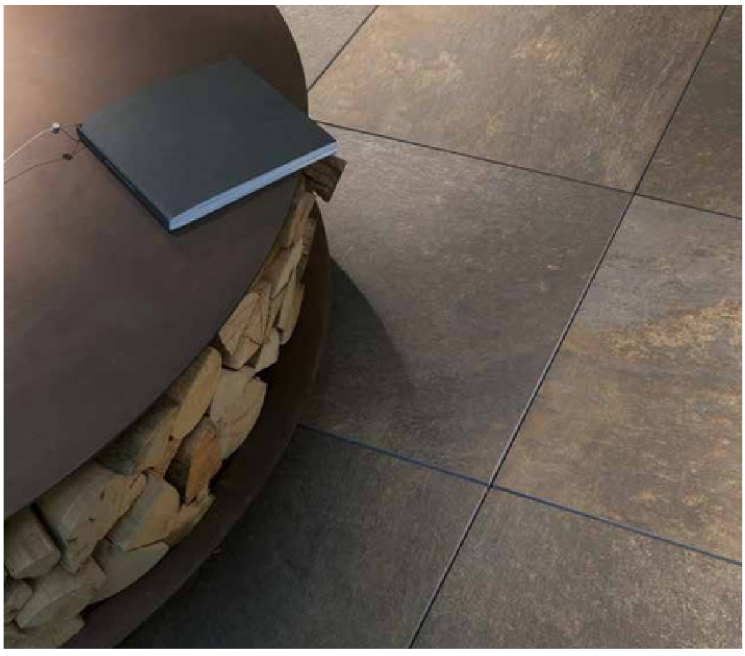
CSP602
23 ⅛ "X 23 ⅛ " rectified
60x60 cm

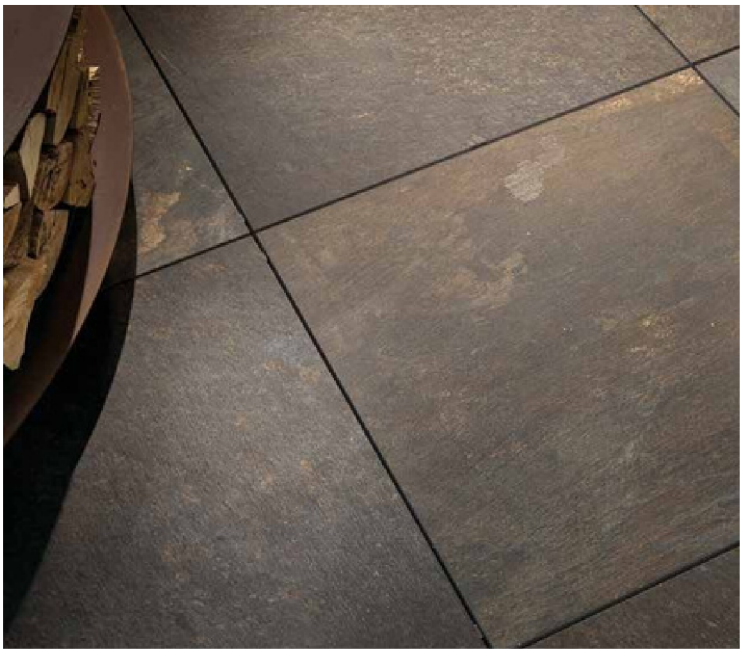
CSP605
11¾ "X 23 ⅛" rectified
30x60 cm

CSP606
11 ¾ "x11 ¾" rectified
30x30 cm

MOUNTAIN SERIES | Rustic Wood



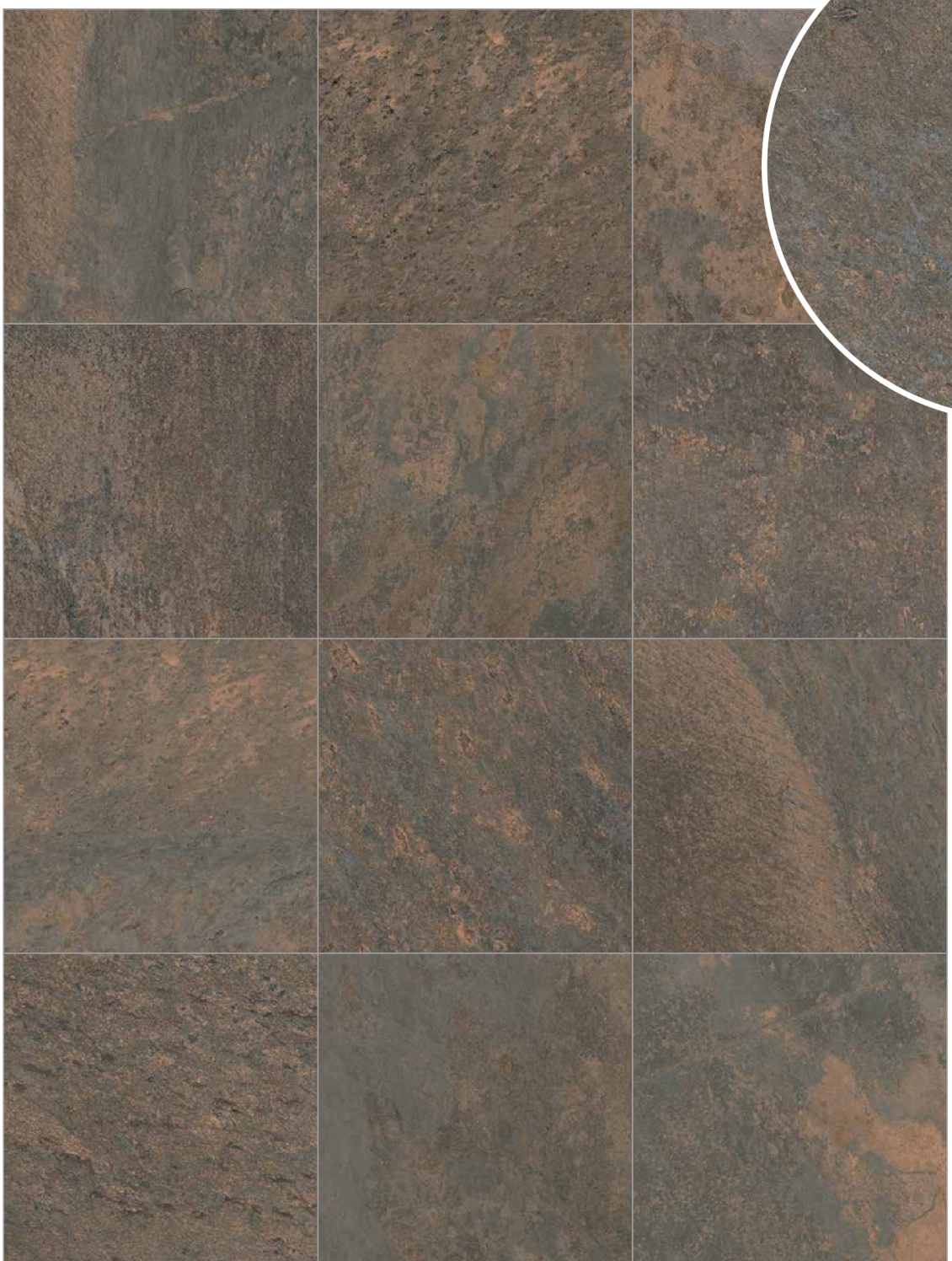




¾" thickness

V4
substantial
variation

CSP603
23⅛"X 23⅛" rectified
60x60 cm



STORM SERIES | Mist

¾" thickness

V3
moderate
variation

CSP701
23⅛"X 23⅛" rectified
60x60 cm

CSP705
11¾"X 23⅛" rectified
30x60 cm

STORM SERIES | Dust

¾" thickness

V3
moderate
variation

CSP702
23⅛"X 23⅛" rectified
60x60 cm

CSP706
11¾"X 23⅛" rectified
30x60 cm

STORM SERIES | Cloud Grey

¾" thickness

V3
moderate
variation

CSP703
23⅓"X 23⅓" rectified
60x60 cm

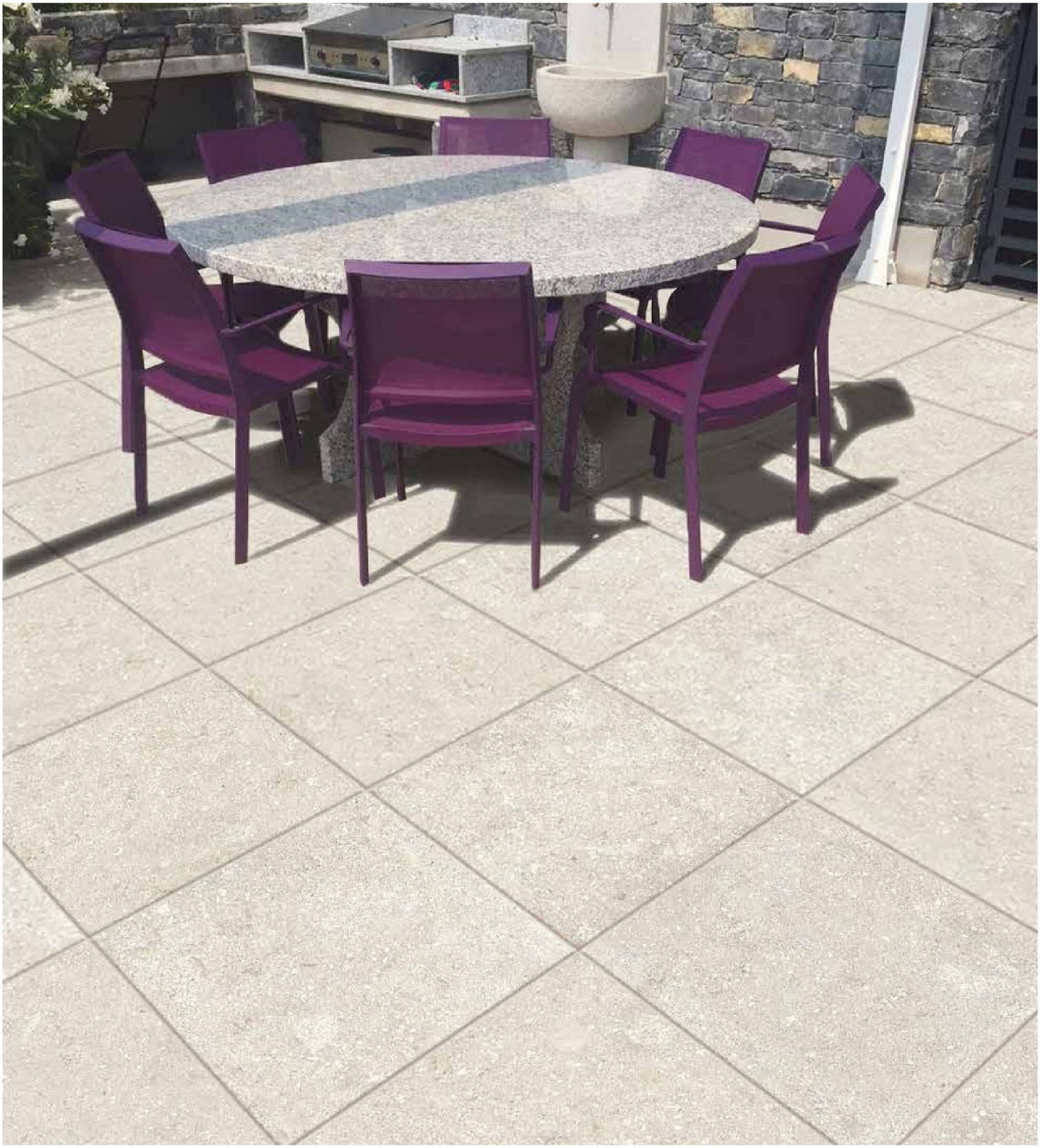
STORM SERIES | Smoke

¾" thickness

V3
moderate
variation

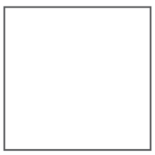
CSP704
23⅛"X 23⅛" rectified
60x60 cm

ISLAND STONE | Papaya



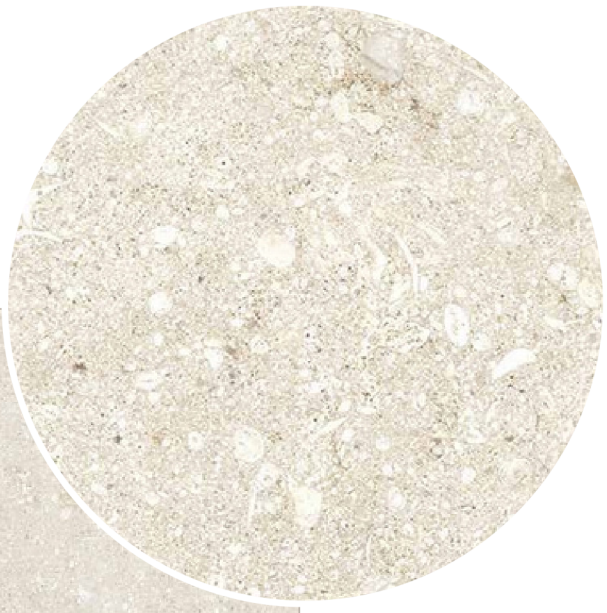
¾" thickness

V2
slight
variation



CSP801
23⅓"X 23⅓" rectified
60x60 cm

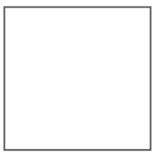
CSP804
11¾"X 23⅓" rectified
30x60 cm



ISLAND STONE | Jade

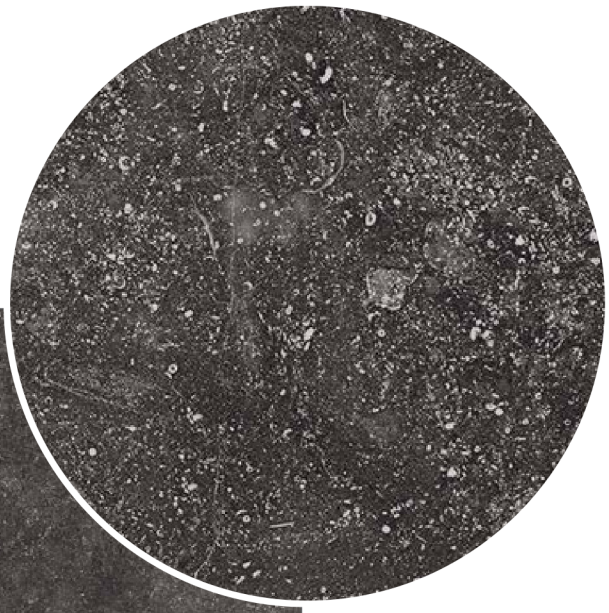
¾" thickness

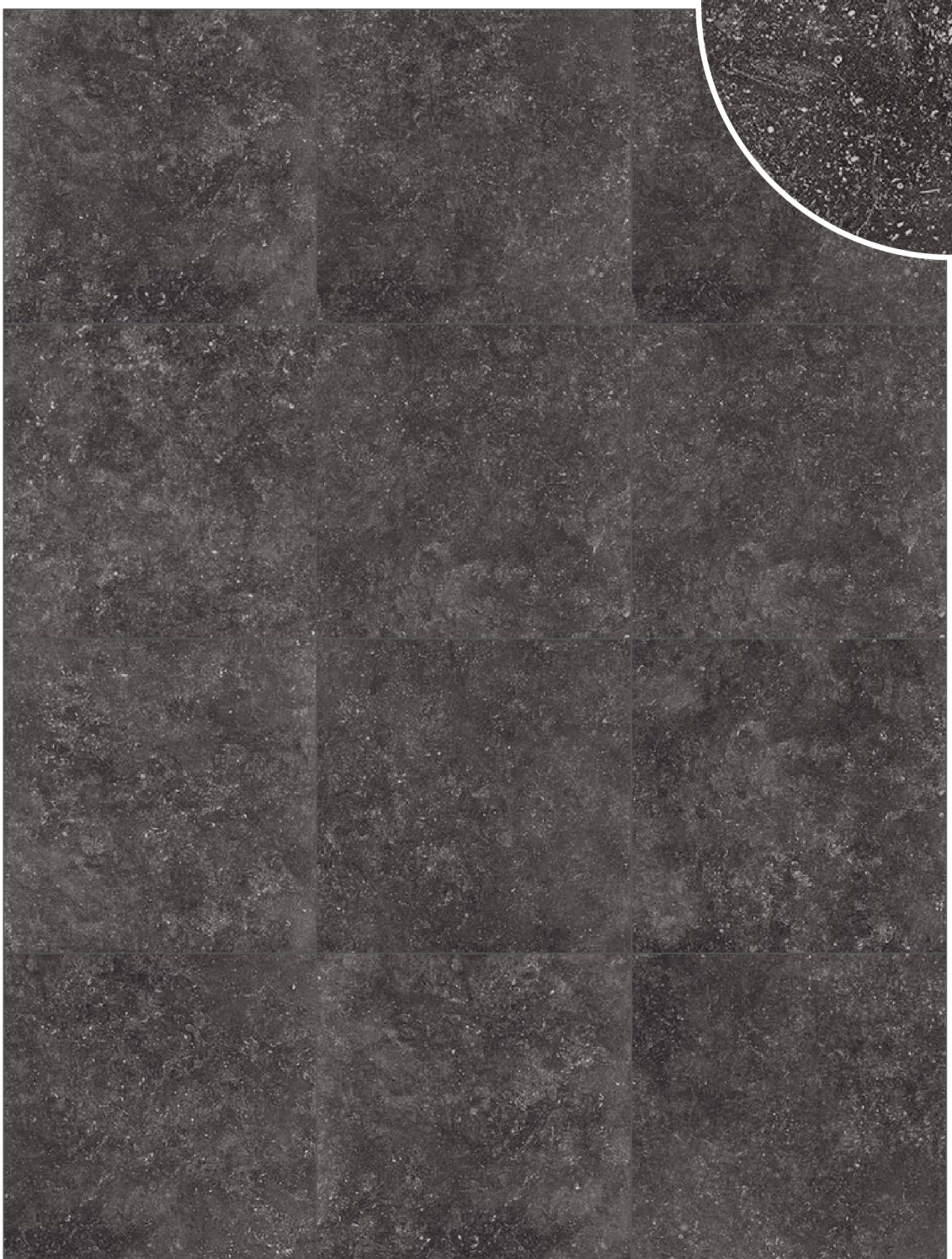
V2
slight
variation



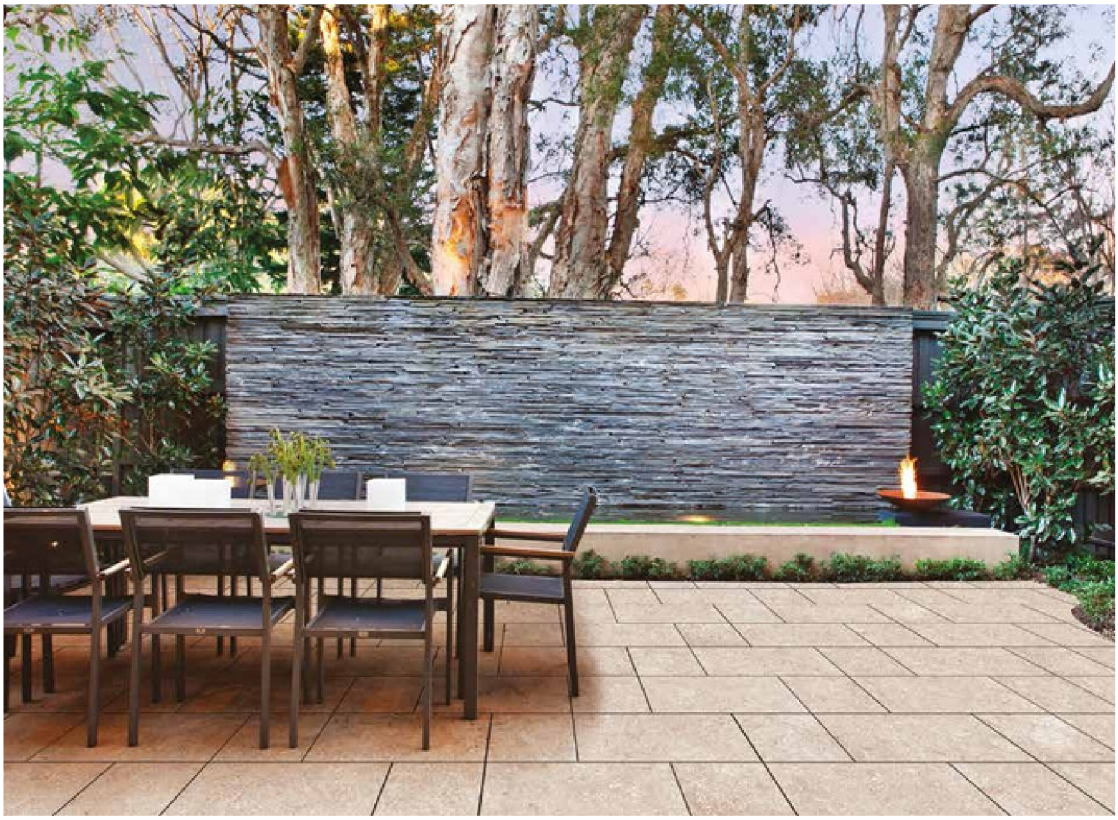
CSP802
23⅛"X 23⅛" rectified
60x60 cm

CSP805
11¾"X 23⅛" rectified
30x60 cm



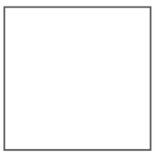


ISLAND STONE | Blond Mocha



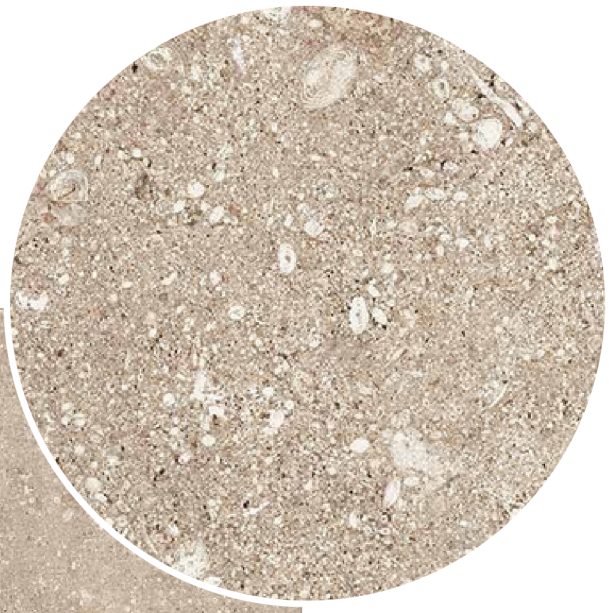
¾" thickness

V2
slight
variation



CSP803
23⅛"X 23⅛" rectified
60x60 cm

CSP806
11¾"X 23⅛" rectified
30x60 cm

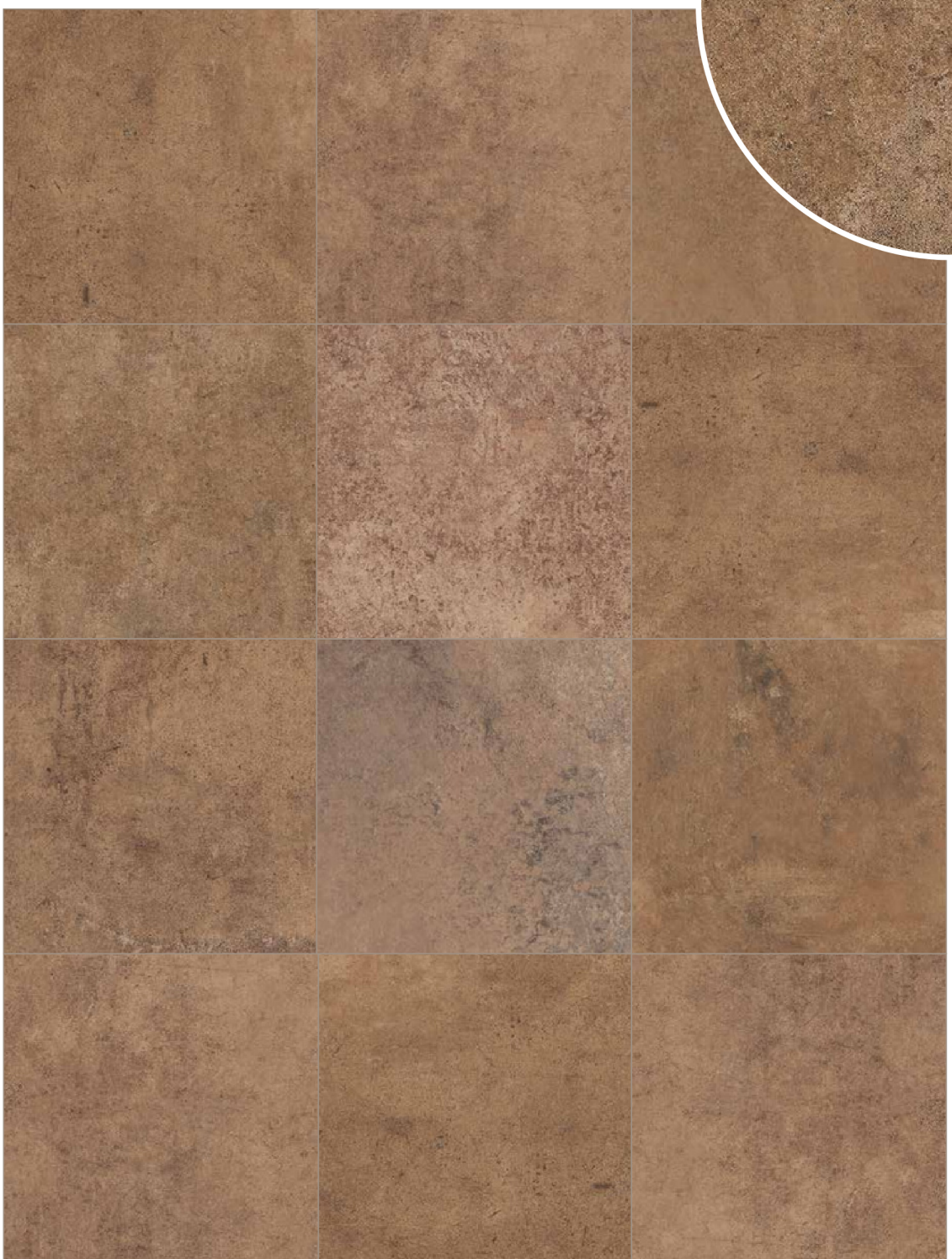


RUST

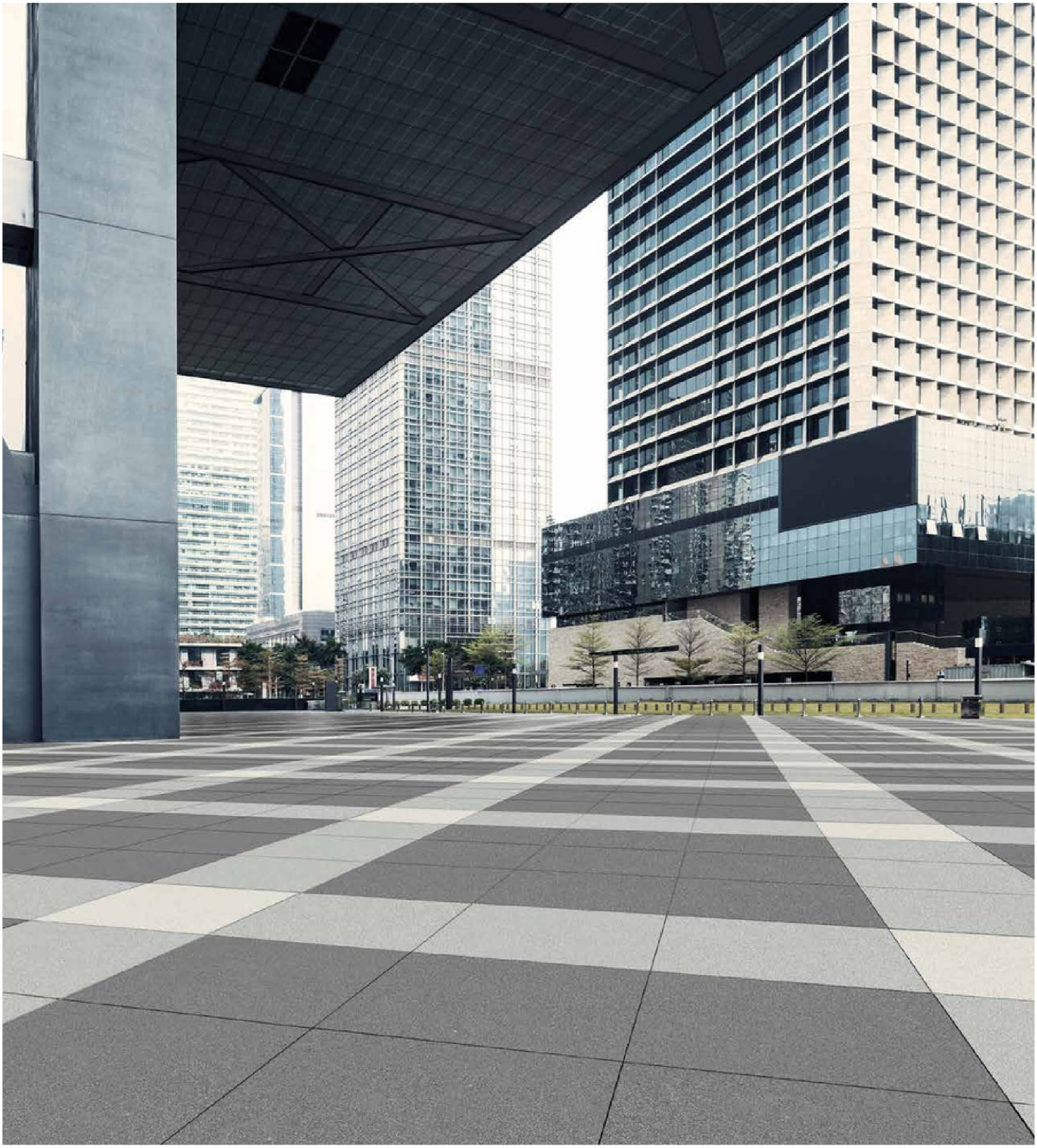
¾" thickness

V3
moderate
variation

CSP901
23⅛"X 23⅛" rectified
60x60 cm



PHILADELPHIA SERIES | Ivory



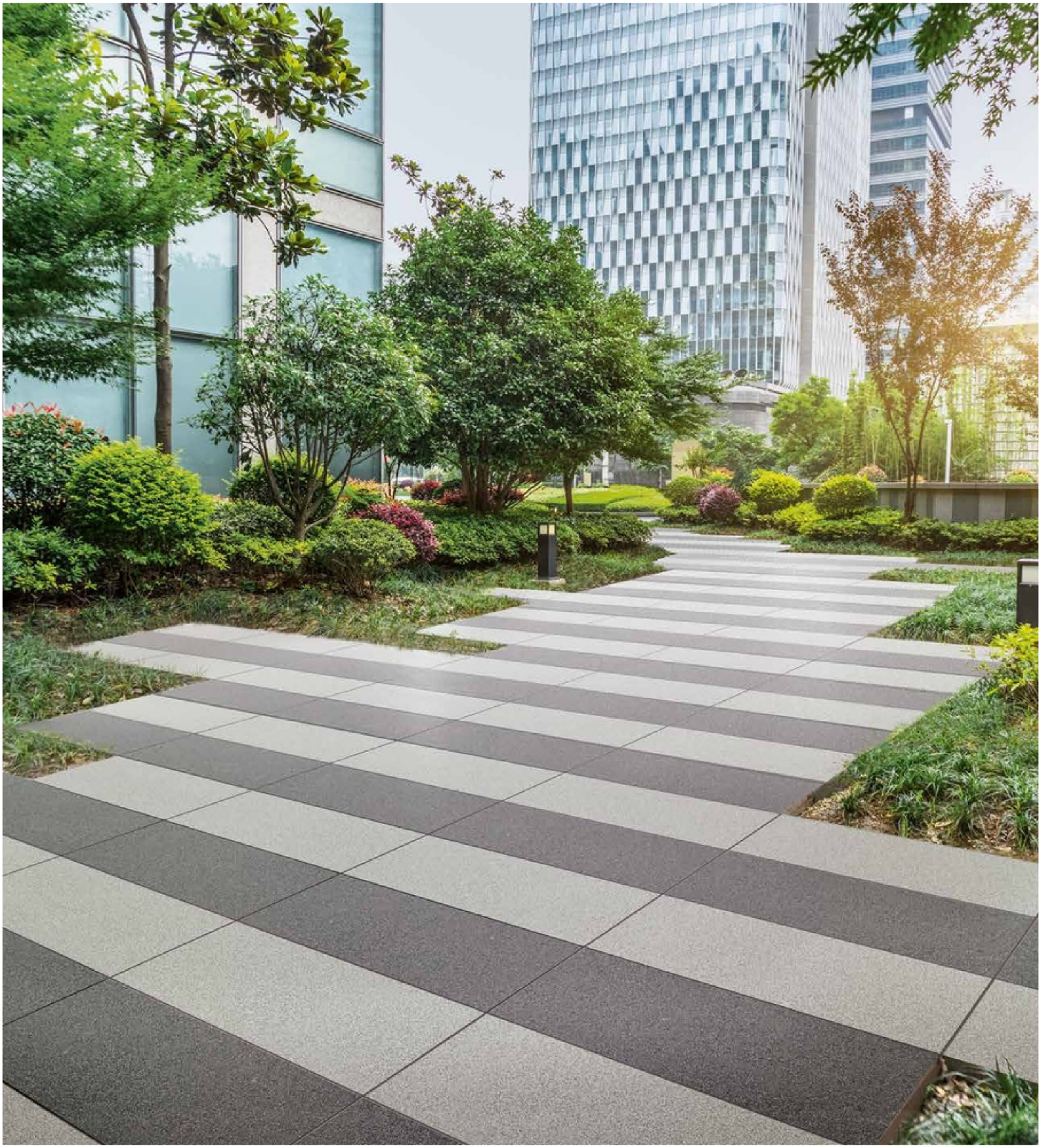
¾" thickness

V1
uniform
appearance

CSP1001
23 ⅓"X 23 ⅓" rectified
60x60 cm

CSP1007
11 ¾"X 23 ⅓" rectified
30x60 cm

PHILADELPHIA SERIES | Platinum

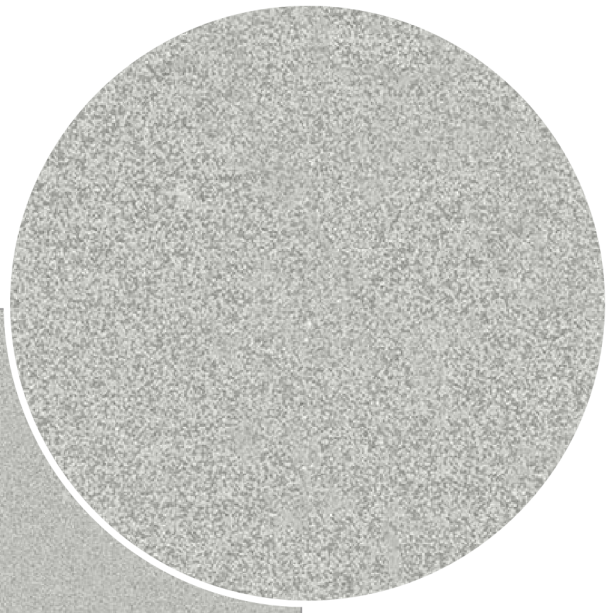


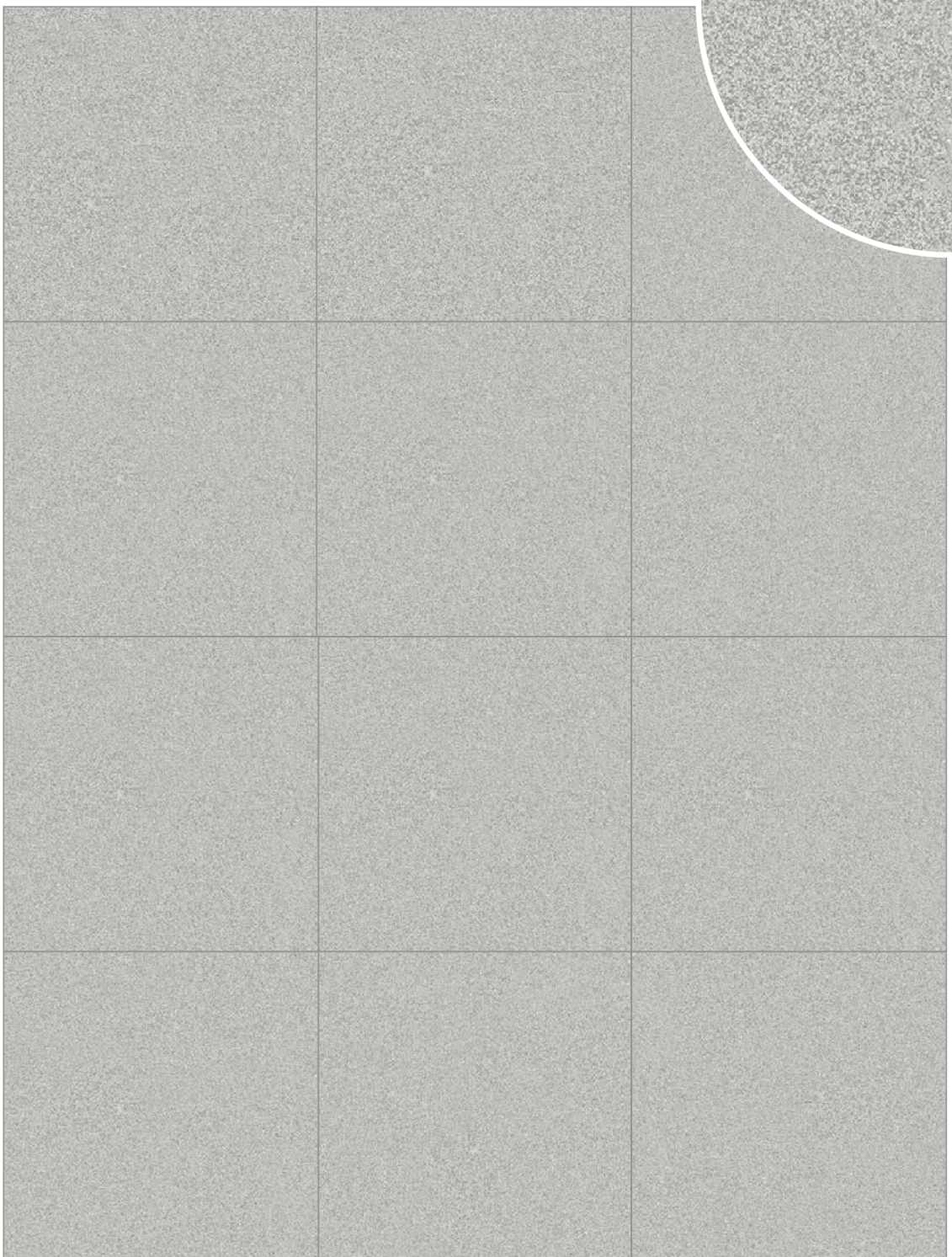
¾" thickness

V1
uniform
appearance

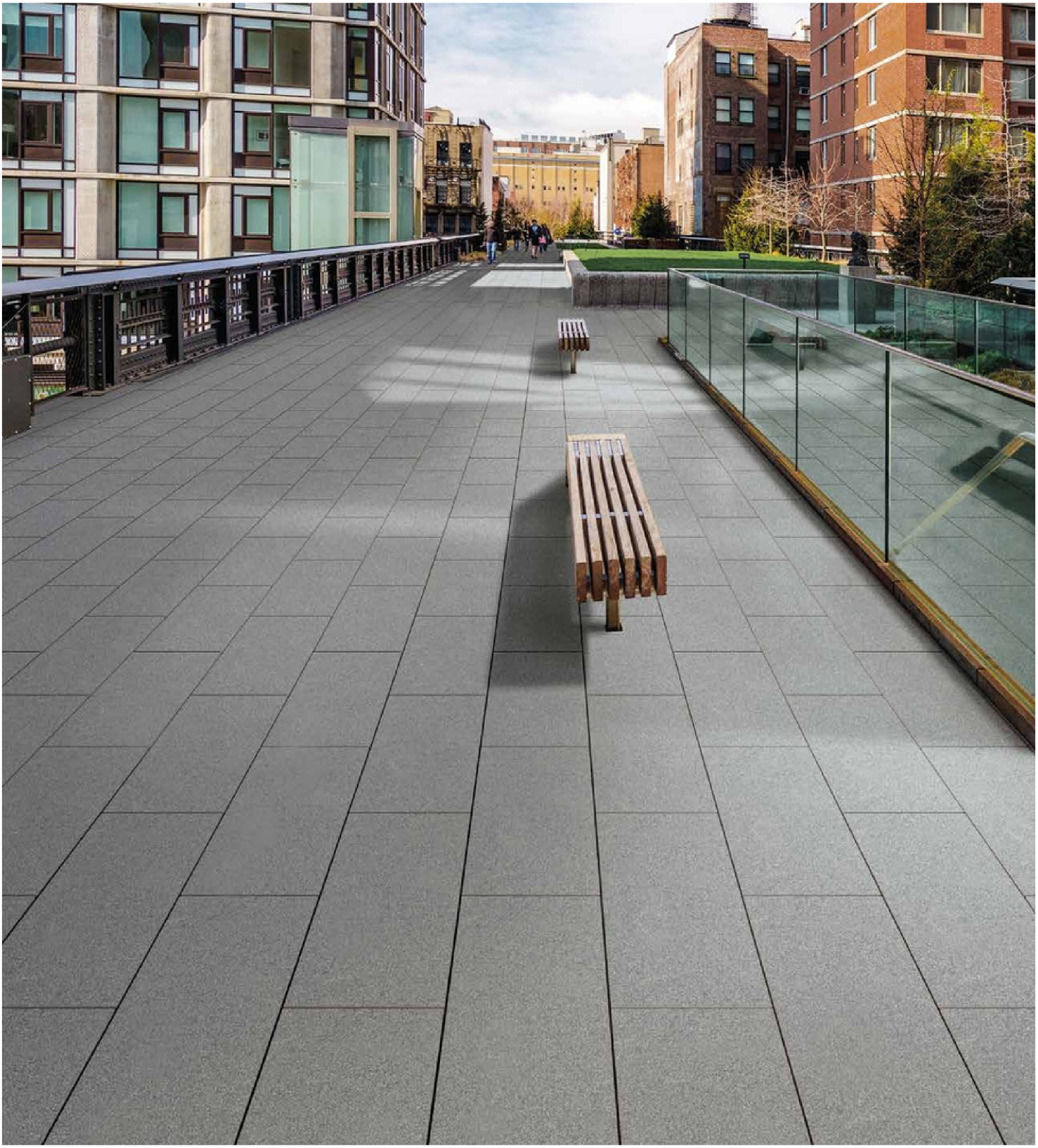
CSP1002
23⅛"X 23⅛" rectified
60x60 cm

CSP1008
11¾"X 23⅛" rectified
30x60 cm



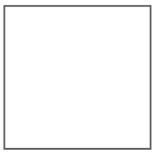


PHILADELPHIA SERIES | Midnight Grey



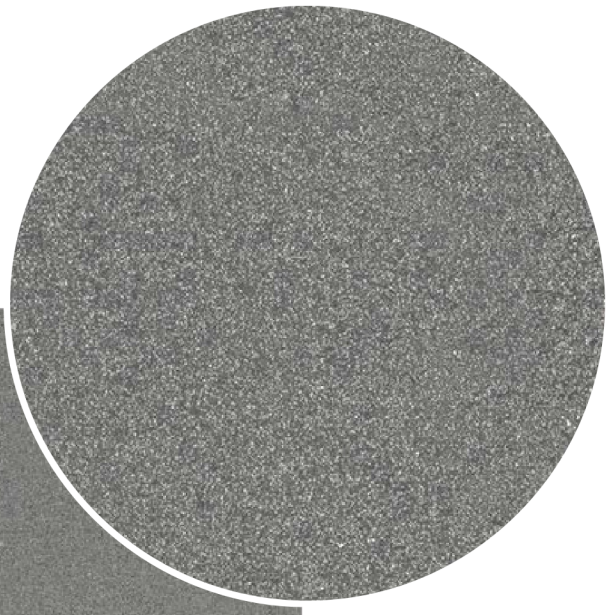
¾" thickness

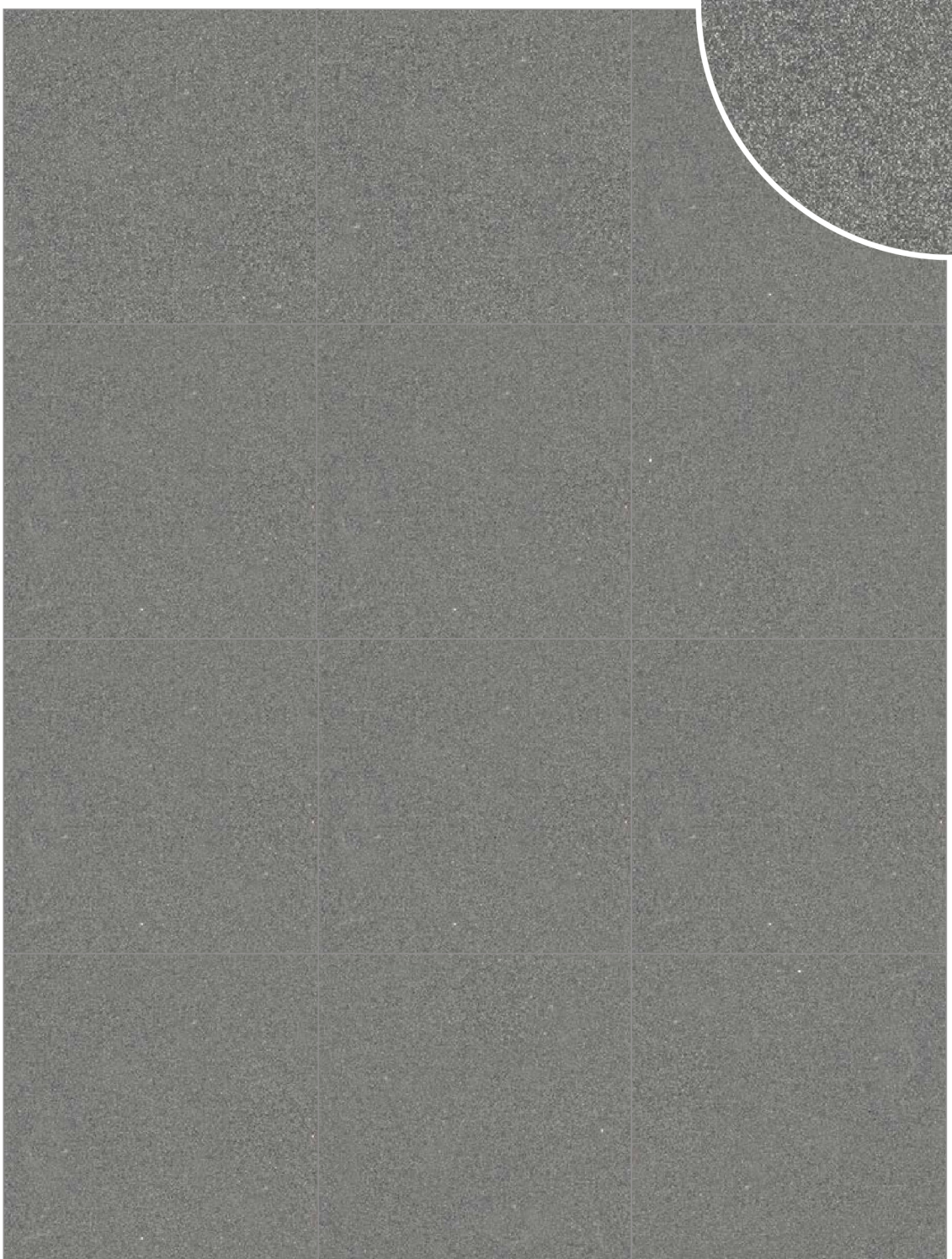
V1
uniform
appearance



CSP1003
23⅛"X 23⅛" rectified
60x60 cm

CSP1009
11¾"X 23⅛" rectified
30x60 cm





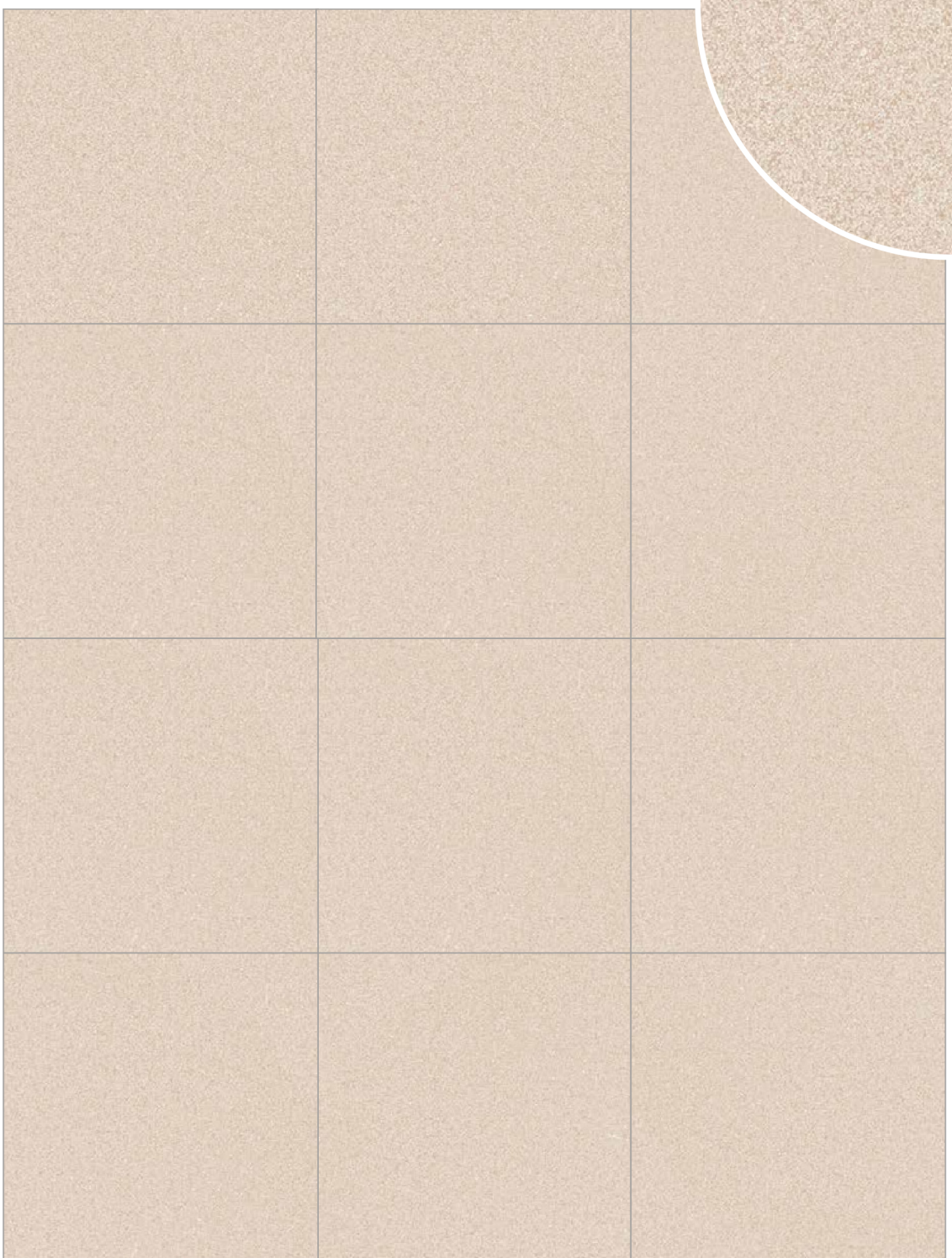
PHILADELPHIA SERIES | Khaki Fawn

¾" thickness

V1
uniform
appearance

CSP1004
23 ⅛ "X 23 ⅛ " rectified
60x60 cm

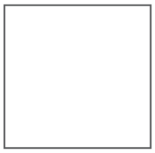
CSP1010
11 ¾ "X 23 ⅛ " rectified
30x60 cm



PHILADELPHIA SERIES | Burly Brass

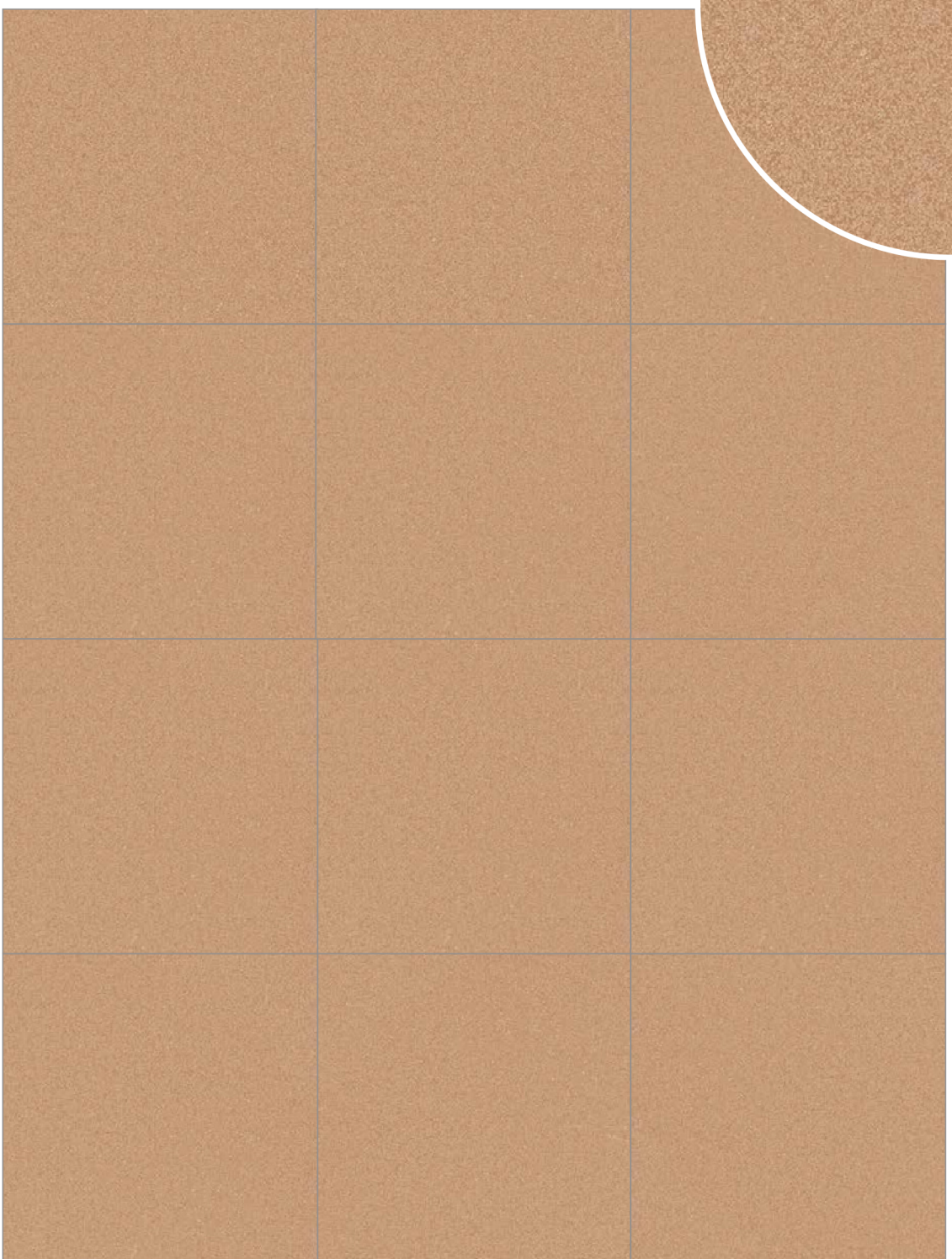
¾" thickness

V1
uniform
appearance

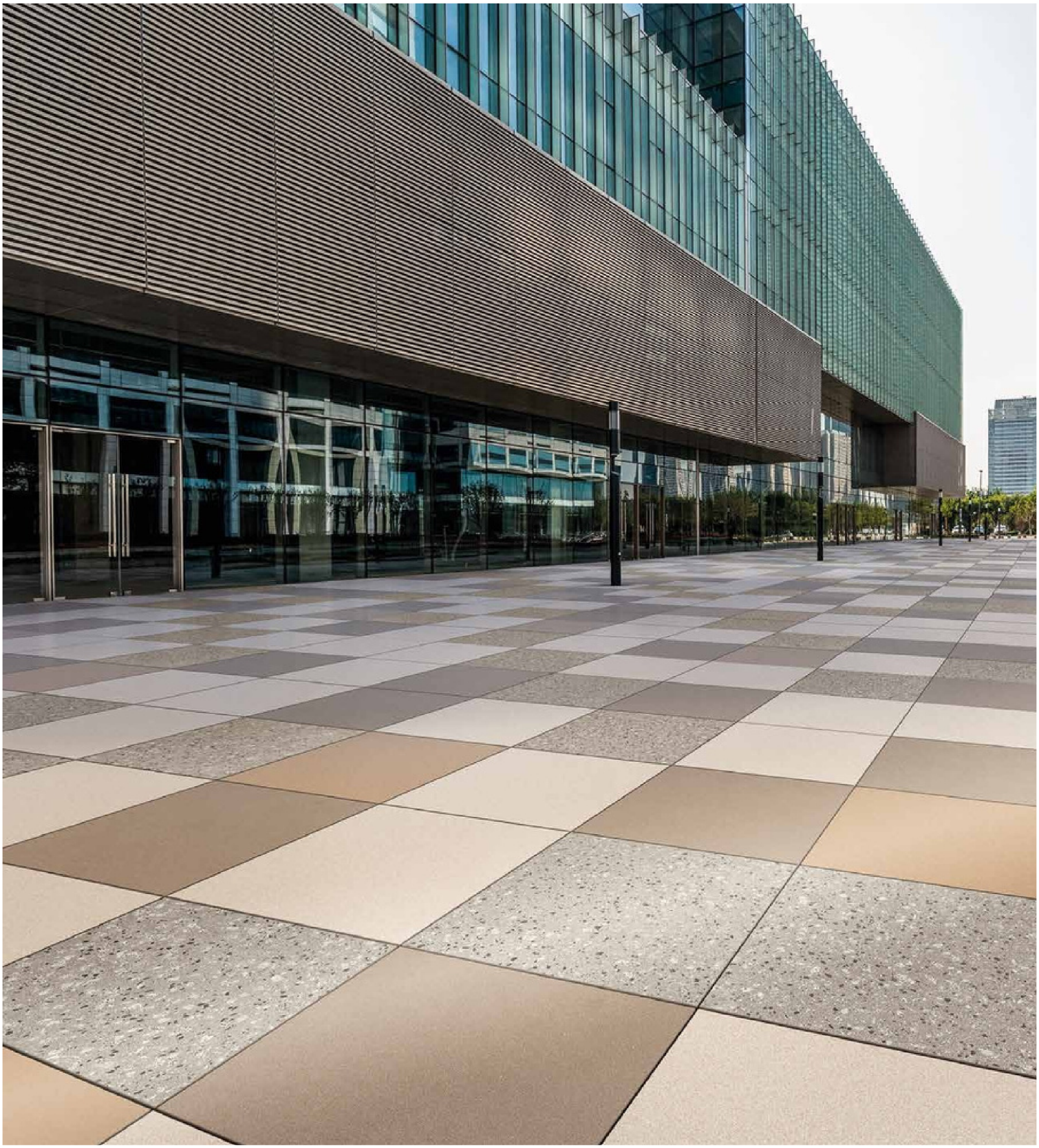


CSP1005
23⅛"X 23⅛" rectified
60x60 cm

CSP1011
11¾"X 23⅛" rectified
30x60 cm



PHILADELPHIA SERIES | Peru

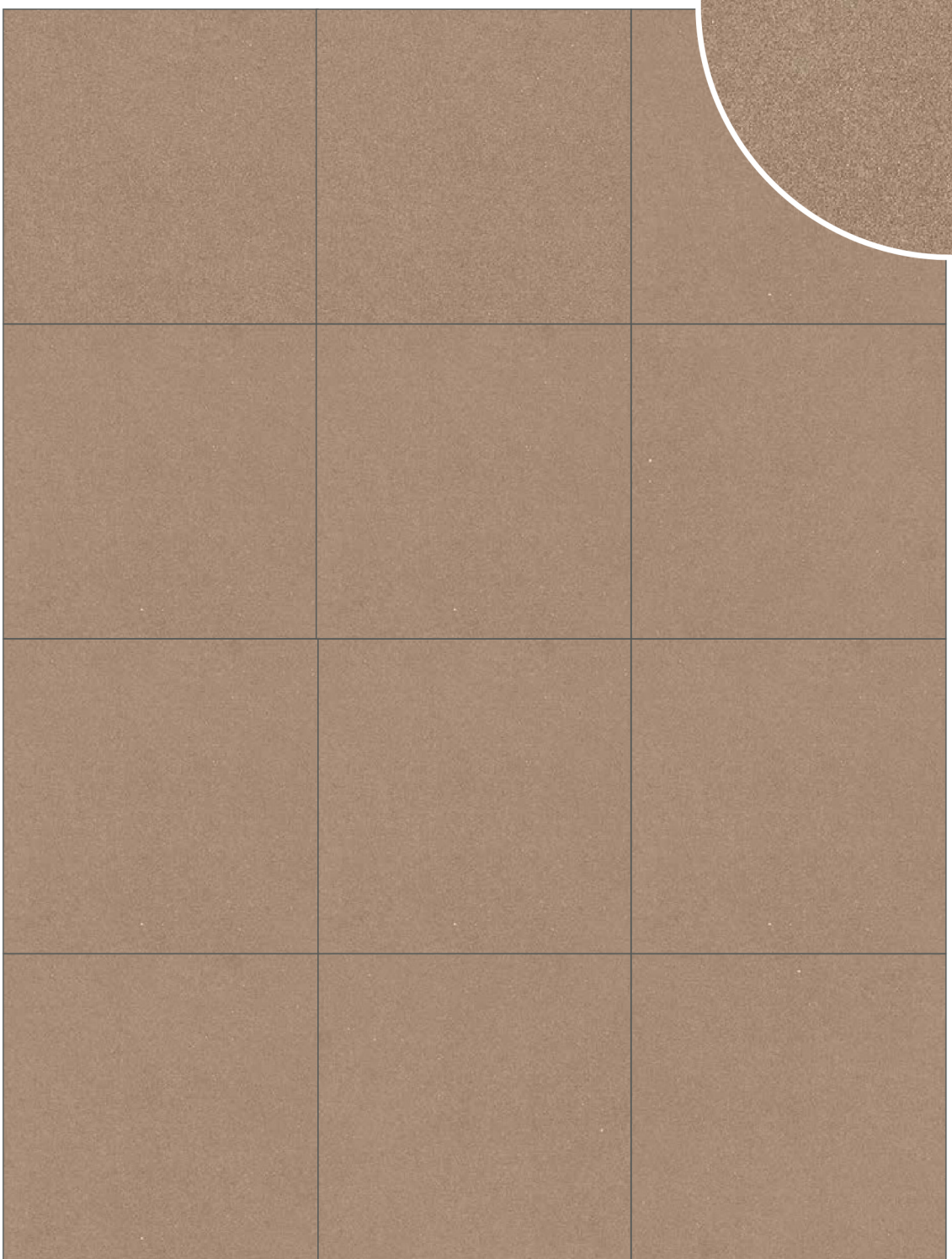


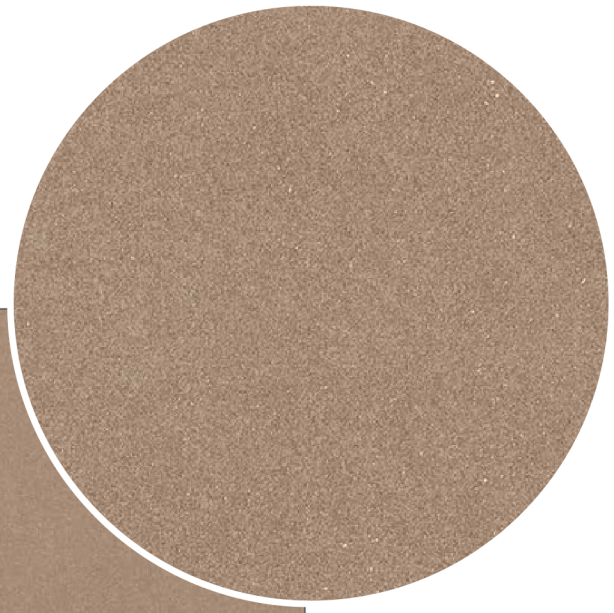
¾" thickness

V1
uniform
appearance

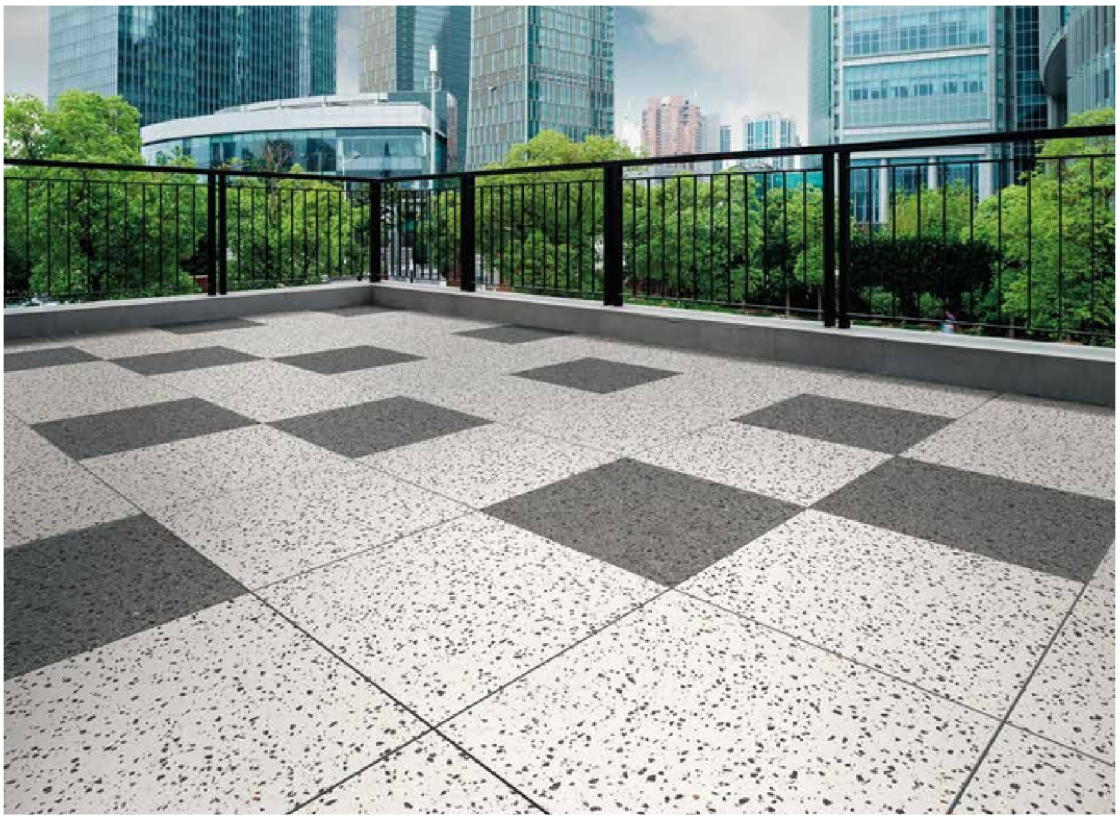
CSP1006
23⅛"X 23⅛" rectified
60x60 cm

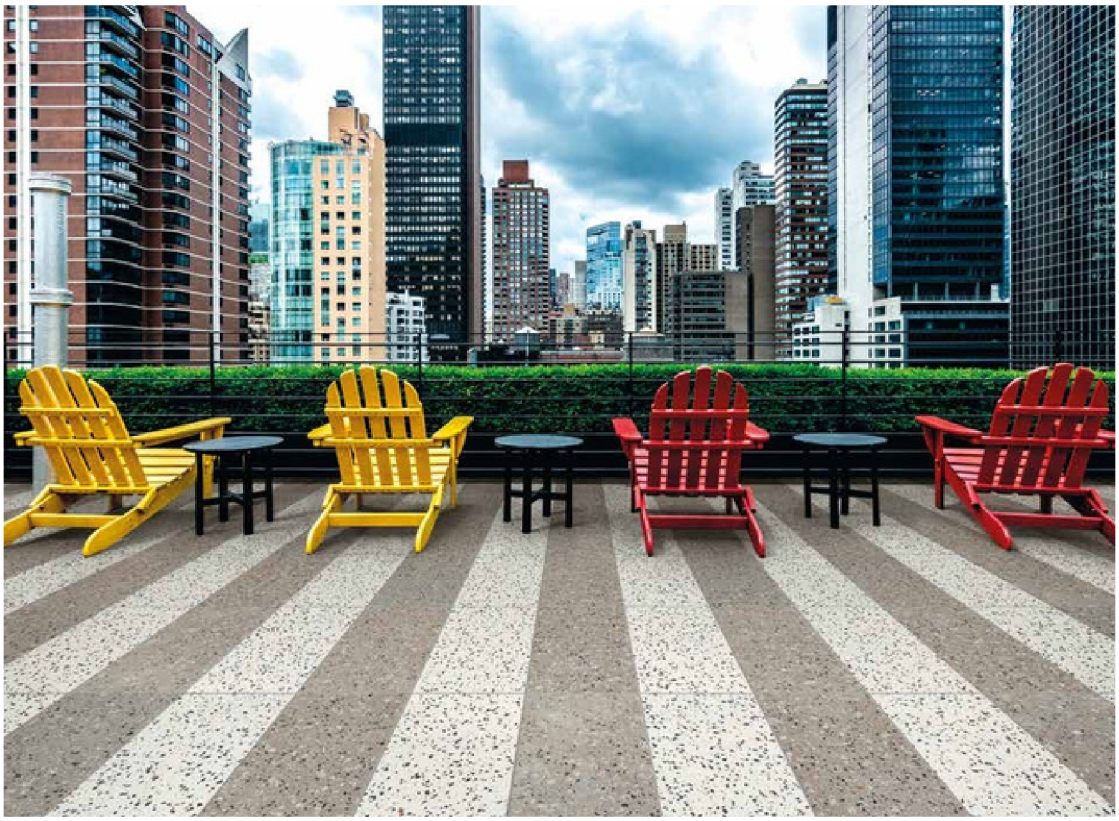
CSP1012
11¾"X 23⅛" rectified
30x60 cm





TERRAZZO PREMIER | Bisque





¾" thickness

V2
slight
variation

CSP1101
23⅛"X 23⅛" rectified
60x60 cm

CSP1106
11¾"X 23⅛" rectified
30x60 cm

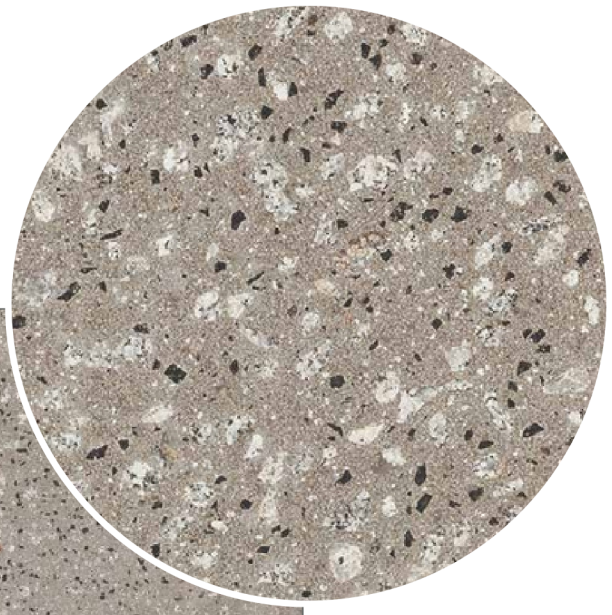
TERRAZZO PREMIER | Clay

¾" thickness

V2
slight
variation

CSP1102
23 ⅛ "X 23 ⅛ " rectified
60x60 cm

CSP1107
11 ¾ "X 23 ⅛ " rectified
30x60 cm



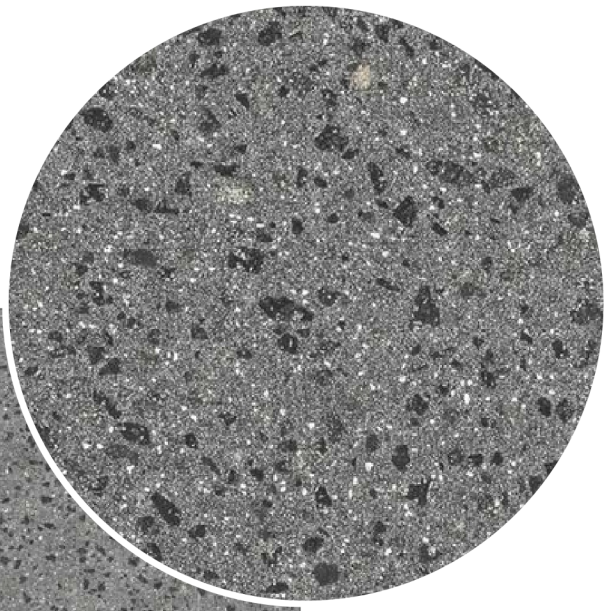
TERRAZZO PREMIER | Truffle

¾" thickness

V2
slight
variation

CSP1103
23⅛"X 23⅛" rectified
60x60 cm

CSP1108
11¾"X 23⅛" rectified
30x60 cm



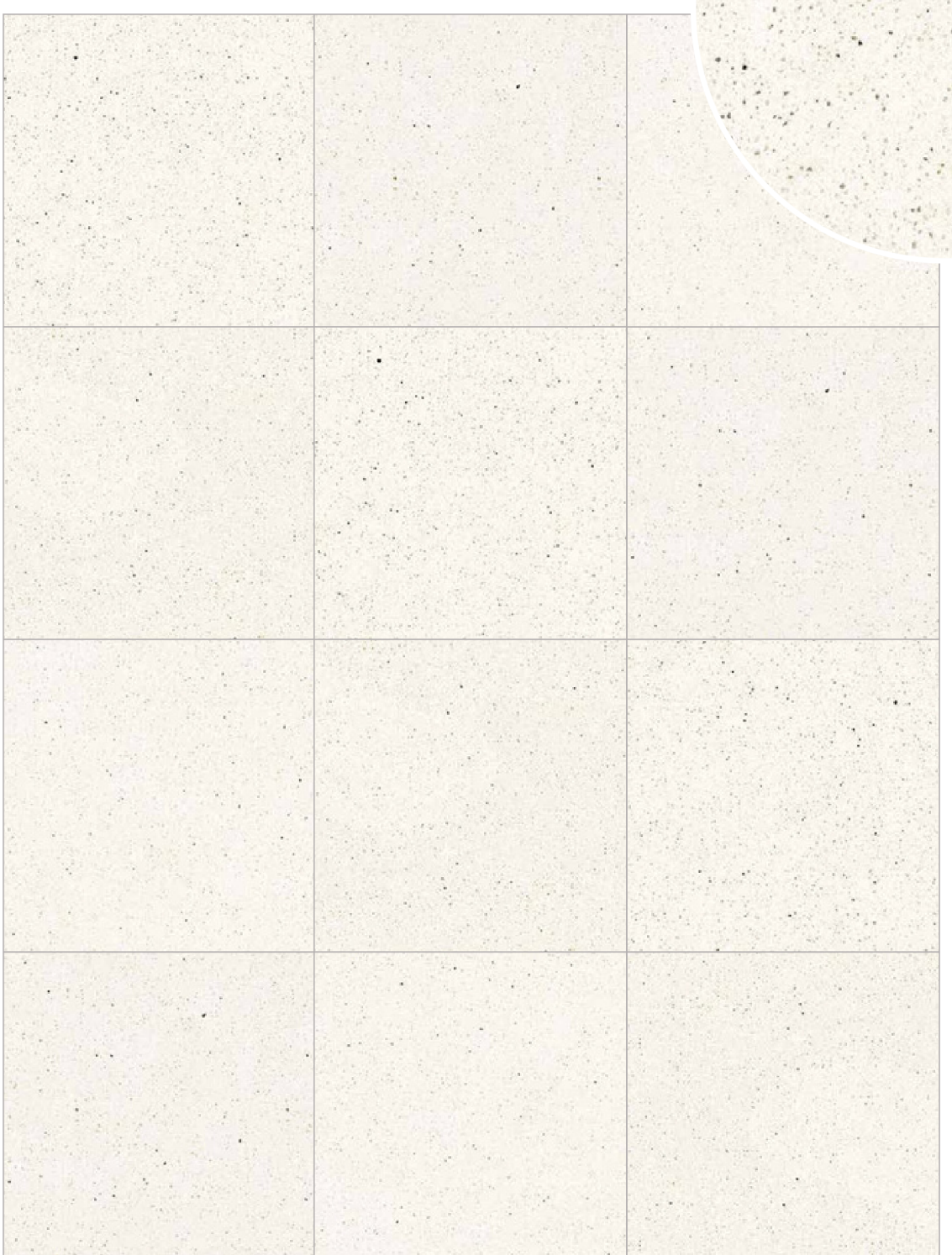
TERRAZZO PREMIER | Atrium

¾" thickness

V2
slight
variation

CSP1104
23⅛"X 23⅛" rectified
60x60 cm

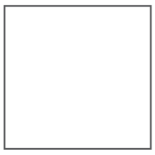
CSP1109
11¾"X 23⅛" rectified
30x60 cm



TERRAZZO PREMIER | Polar

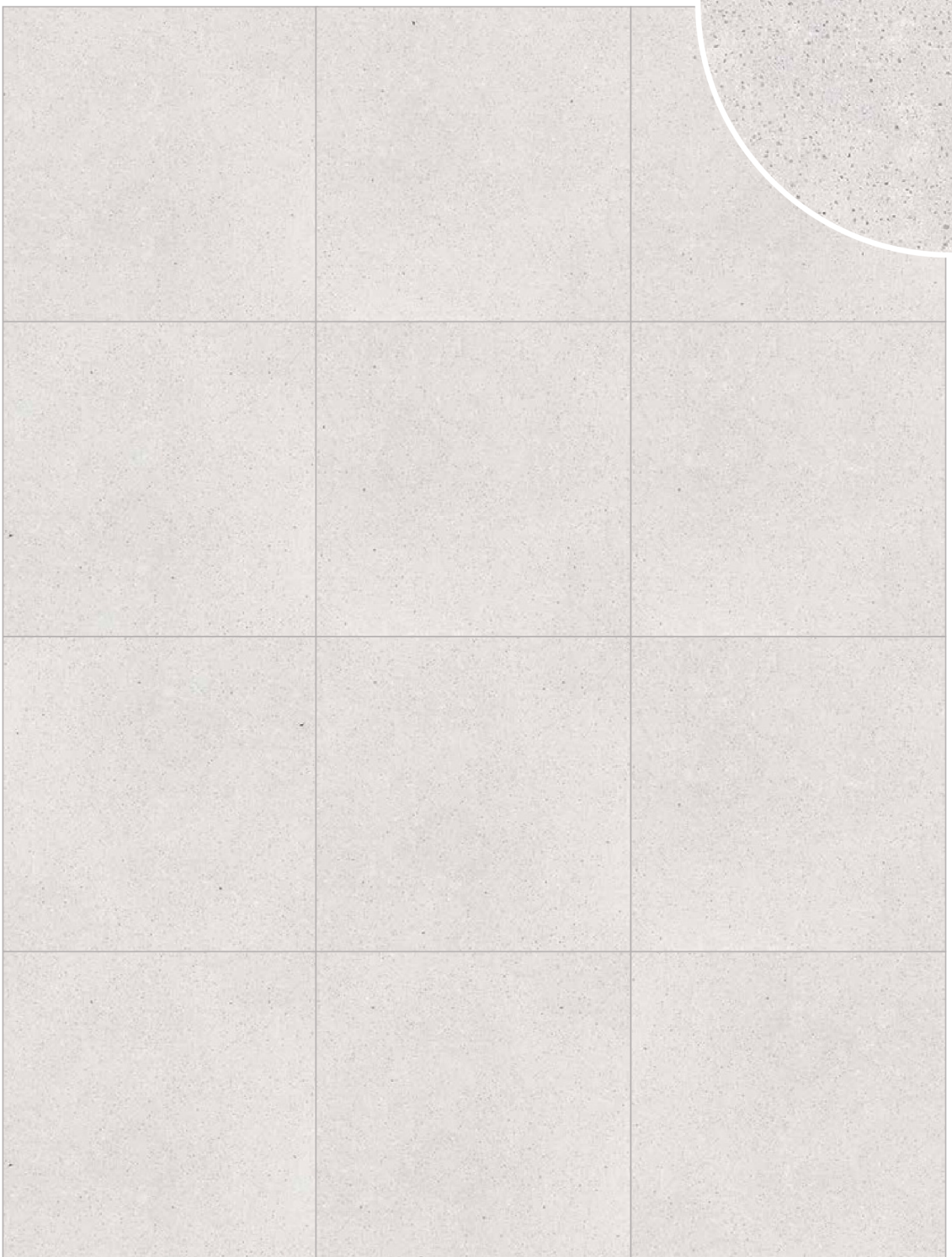
¾" thickness

V2
slight
variation



CSP1105
23 ⅛"X 23 ⅛" rectified
60x60 cm

CSP1110
11 ¾"X 23 ⅛" rectified
30x60 cm



MINERAL SERIES | Chiffon Grey

¾" thickness

V2
slight
variation

CSP1306
23⅛"X 48⅛" rectified
60x120 cm

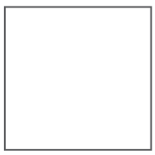
CSP1303
23⅛"X 23⅛" rectified
60x60 cm

MINERAL SERIES | Sepia Powder

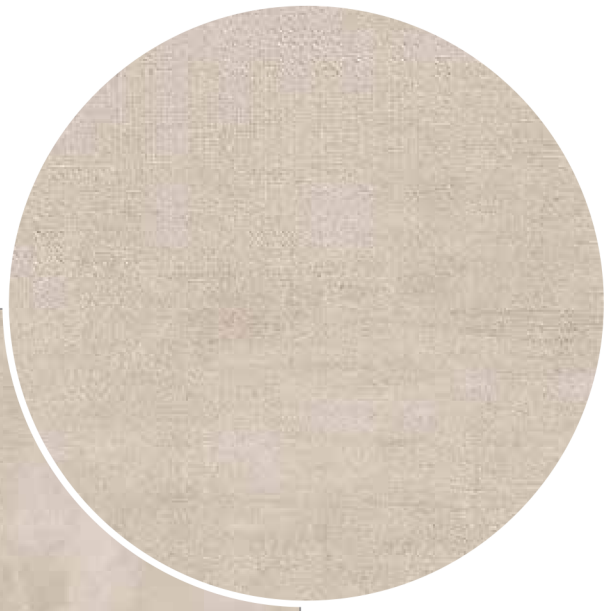
¾" thickness

V2
slight
variation

CSP1307
23 ⅛ "X 48 ⅛" rectified
60x120 cm



CSP1304
23 ⅛ "X 23 ⅛" rectified
60x60 cm



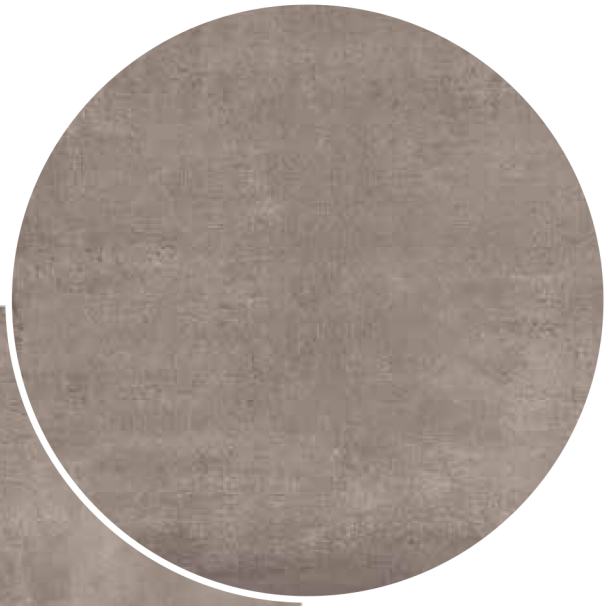
MINERAL SERIES | Flaxen

¾" thickness

V2
slight
variation

CSP1308
23⅛"X 48⅛" rectified
60x120 cm

CSP1305
23⅛"X 23⅛" rectified
60x60 cm



ANTIQUE WOOD SERIES | Agave Forest

¾" thickness

V3
moderate
variation

CSP1201
23⅓"X 23⅓" rectified
60x60 cm

ANTIQUE WOOD SERIES | Aged Medallion

¾" thickness

V3
moderate
variation

CSP1202
23⅓"X 23⅓" rectified
60x60 cm

ANTIQUE WOOD SERIES | Dove

¾" thickness

V3
moderate
variation

CSP1203
23⅛"X 23⅛" rectified
60x60 cm

NATURAL WOOD SERIES | Chicory

¾" thickness

V3
moderate
variation

CSP1301
23⅓"X 23⅓" rectified
60x60 cm

NATURAL WOOD SERIES | Bark Brown

¾" thickness

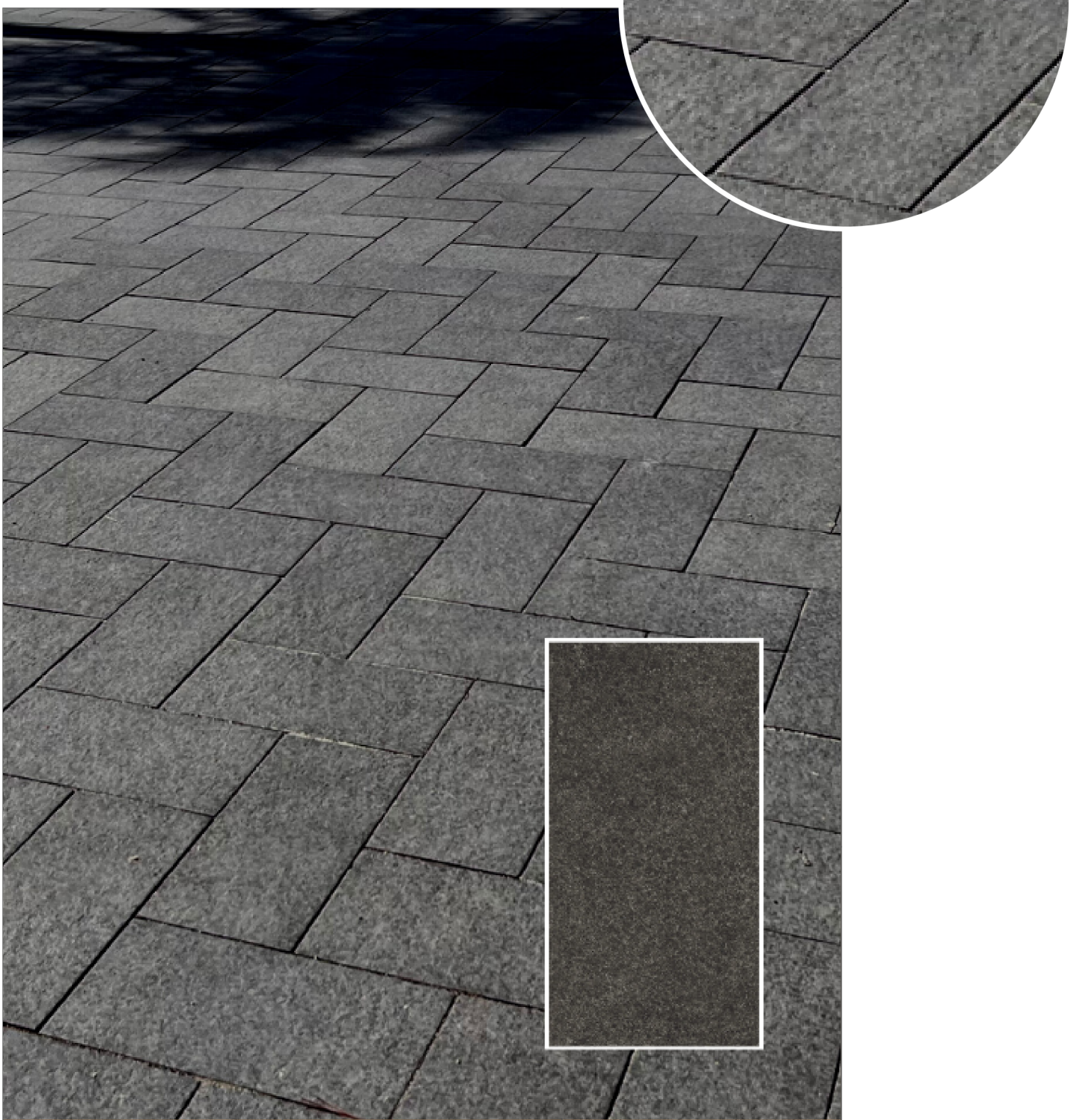
V3
moderate
variation

CSP1302
23⅛"X 23⅛" rectified
60x60 cm

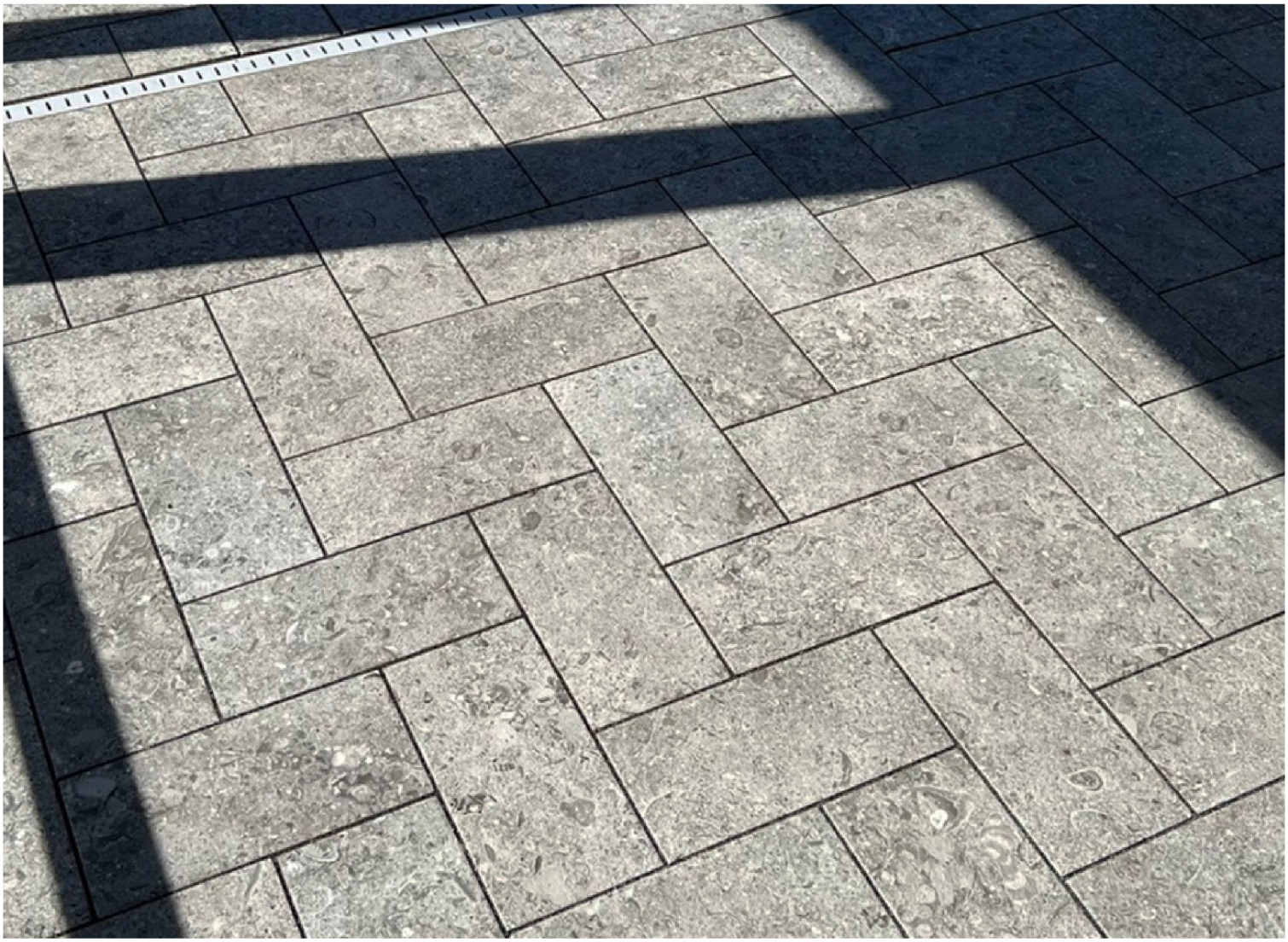
PORPHYRY SERIES | Midnight

1 3/16" thickness

CSP1309
6" x 12" rectified
15 x 30 cm



PORPHYRY SERIES | Silver



1 3/16" thickness

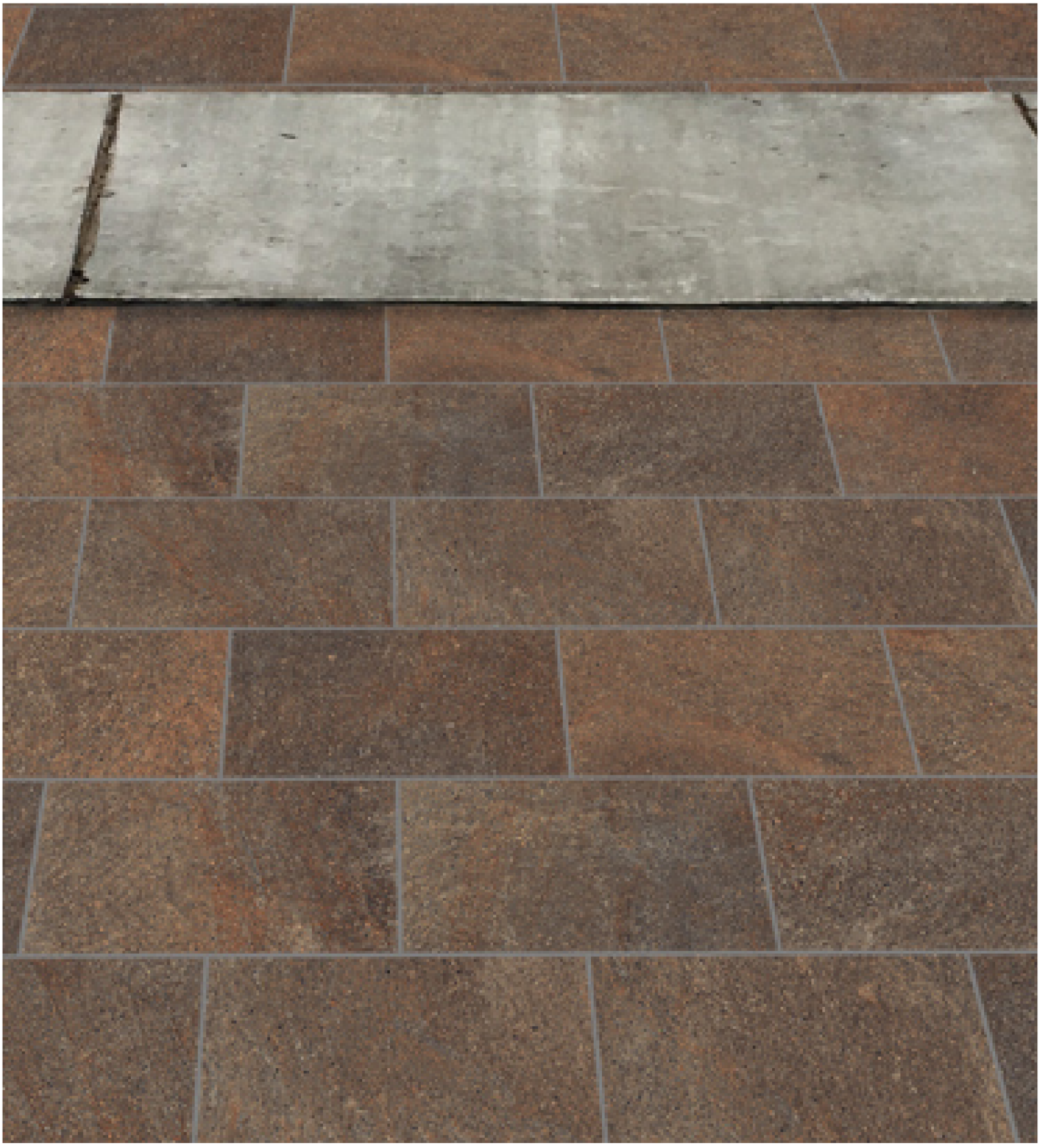
CSP1310
6" x 12" rectified
15 x 30 cm

PORPHYRY SERIES | Silk

1 3/16" thickness

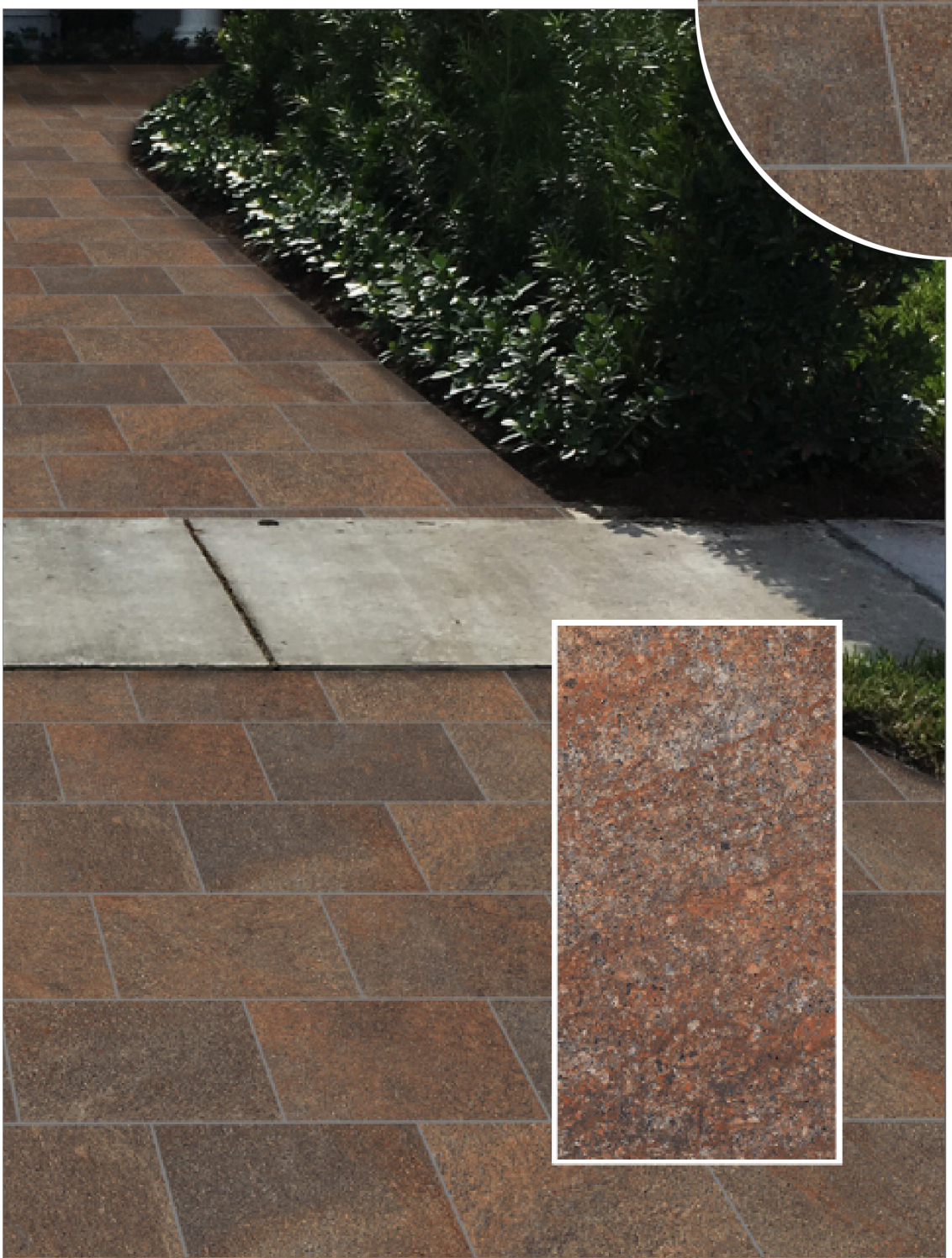
CSP1311
6" x 12" rectified
15 x 30 cm

PORPHYRY SERIES | Umber Rust

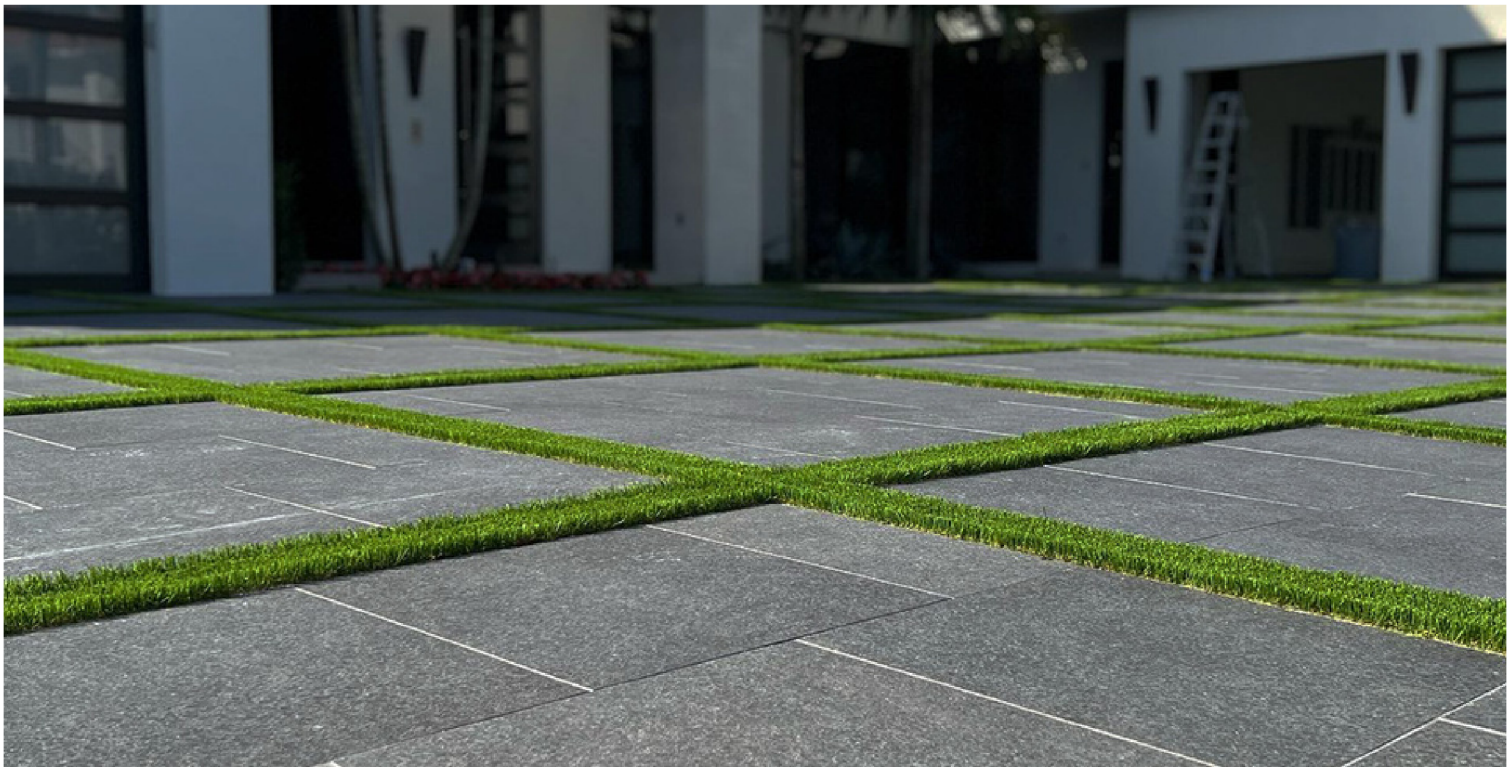


1 3/16" thickness

CSP1312
6" x 12" rectified
15 x 30 cm



PORPHYRY SERIES | Basalt



1 3/16" thickness

CSP1313
24" x 24" rectified
61 x 61 cm

CSP1314
16" x 32" rectified
40 x 80 cm

PORPHYRY SERIES | Grey Limestone

1 3/16" thickness

CSP1315
16" x 32" rectified
40 x 80 cm

PORPHYRY SERIES | Light French Grey

1 3/16" thickness

CSP1316
24" x 24" rectified
61 x 61 cm

CSP1317
16" x 32" rectified
40 x 80 cm

QUARTZ SERIES | Kilm Stone

1 3/16" thickness

CSP1318
16" x 32" rectified
40 x 80 cm

QUARTZ SERIES | Mirror Grey

1 3/16" thickness

CSP1319
24" x 24" rectified
61 x 61 cm

QUARTZ SERIES | Southern Grey

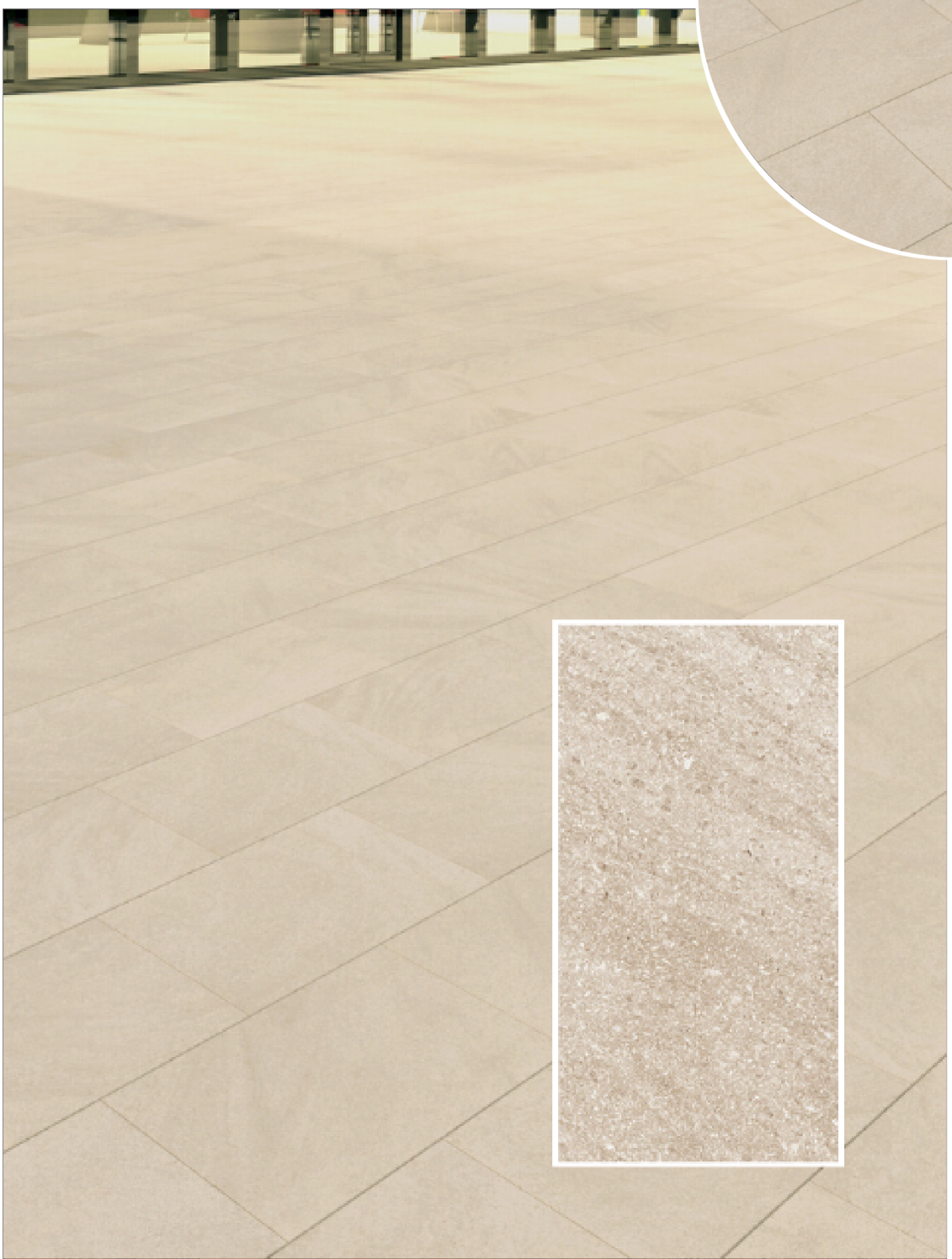
1 3/16" thickness

CSP1320
6" x 12" rectified
15 x 30 cm

QUARTZ SERIES | Southern Sand

1 3/16" thickness

CSP1321
6" x 12" rectified
15 x 30 cm



QUARTZ SERIES | Downing Sand

1 3/16" thickness

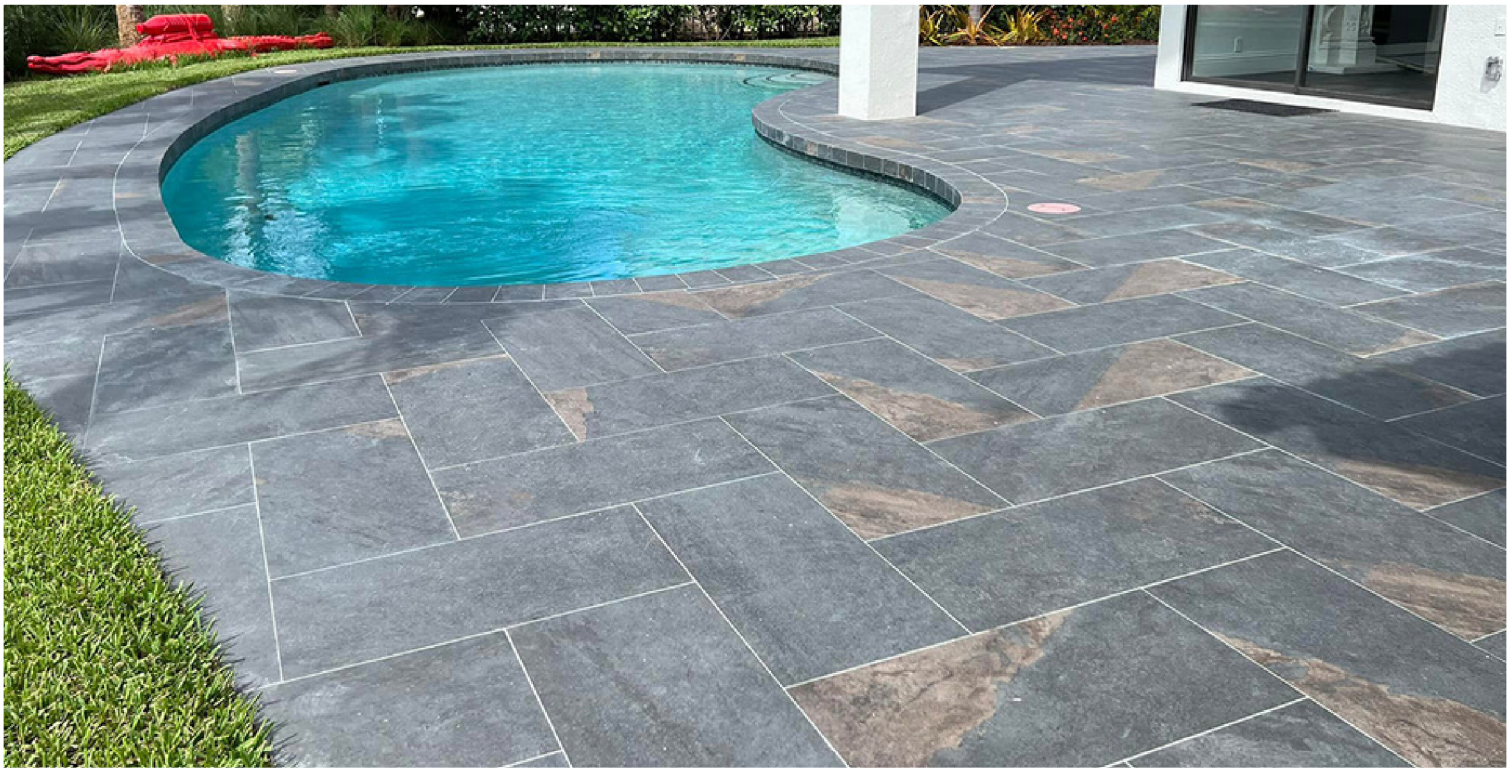
CSP1322
16" x 32" rectified
40 x 80 cm

HERITAGE SERIES | Antique Grey

1 3/16" thickness

CSP1323
24" x 24" rectified
61 x 61 cm

HERITAGE SERIES | Dark Bluestone



1 3/16" thickness

CSP1324
16" x 32" rectified
40 x 80 cm

HERITAGE SERIES | Granite Grey

1 3/16" thickness

CSP1325
16" x 32" rectified
40 x 80 cm

HERITAGE SERIES | Aged Stone

1 3/16" thickness

CSP1326
16" x 32" rectified
40 x 80 cm

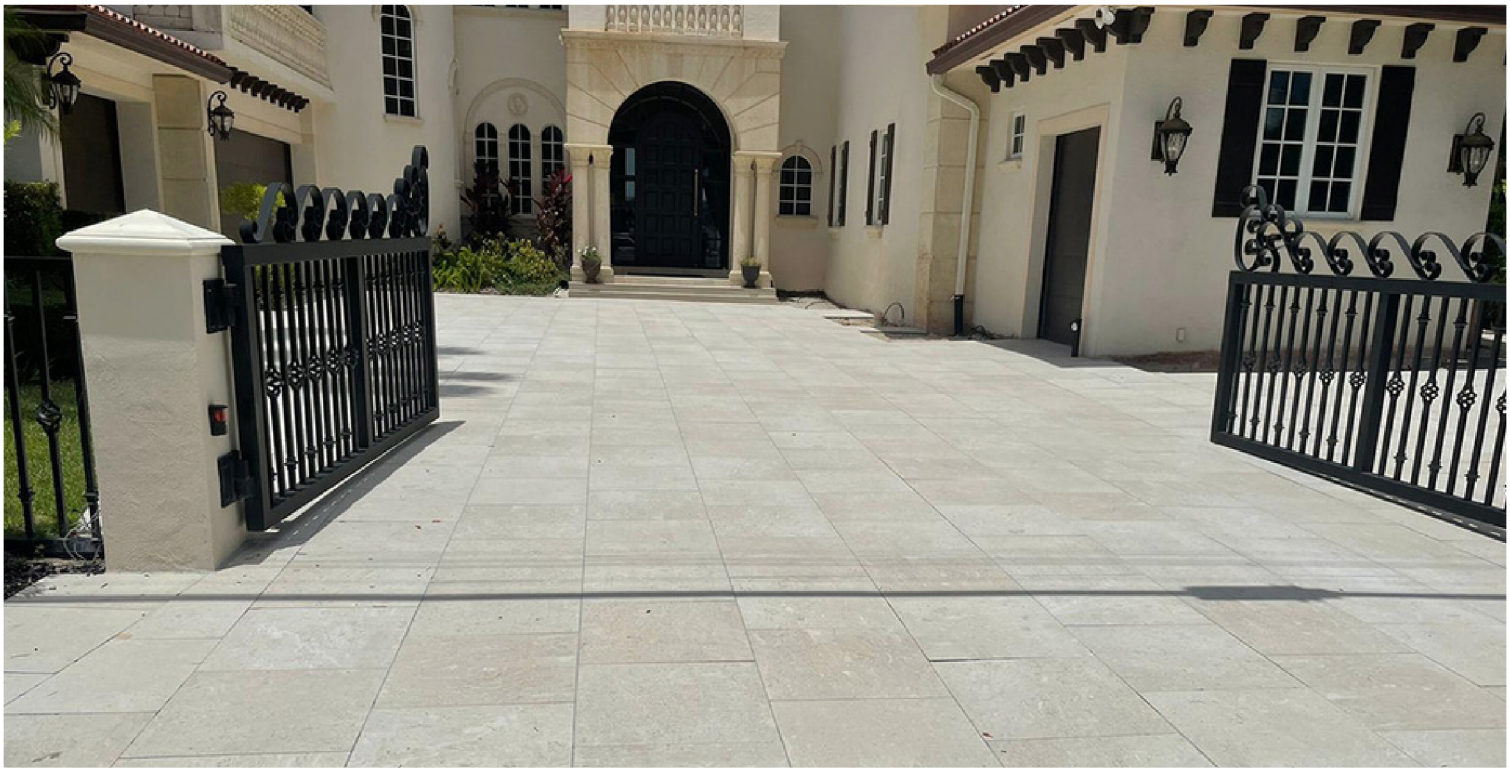
HERITAGE SERIES | Tuscany Grey

1 3/16" thickness

CSP1327
24" x 24" rectified
61 x 61 cm

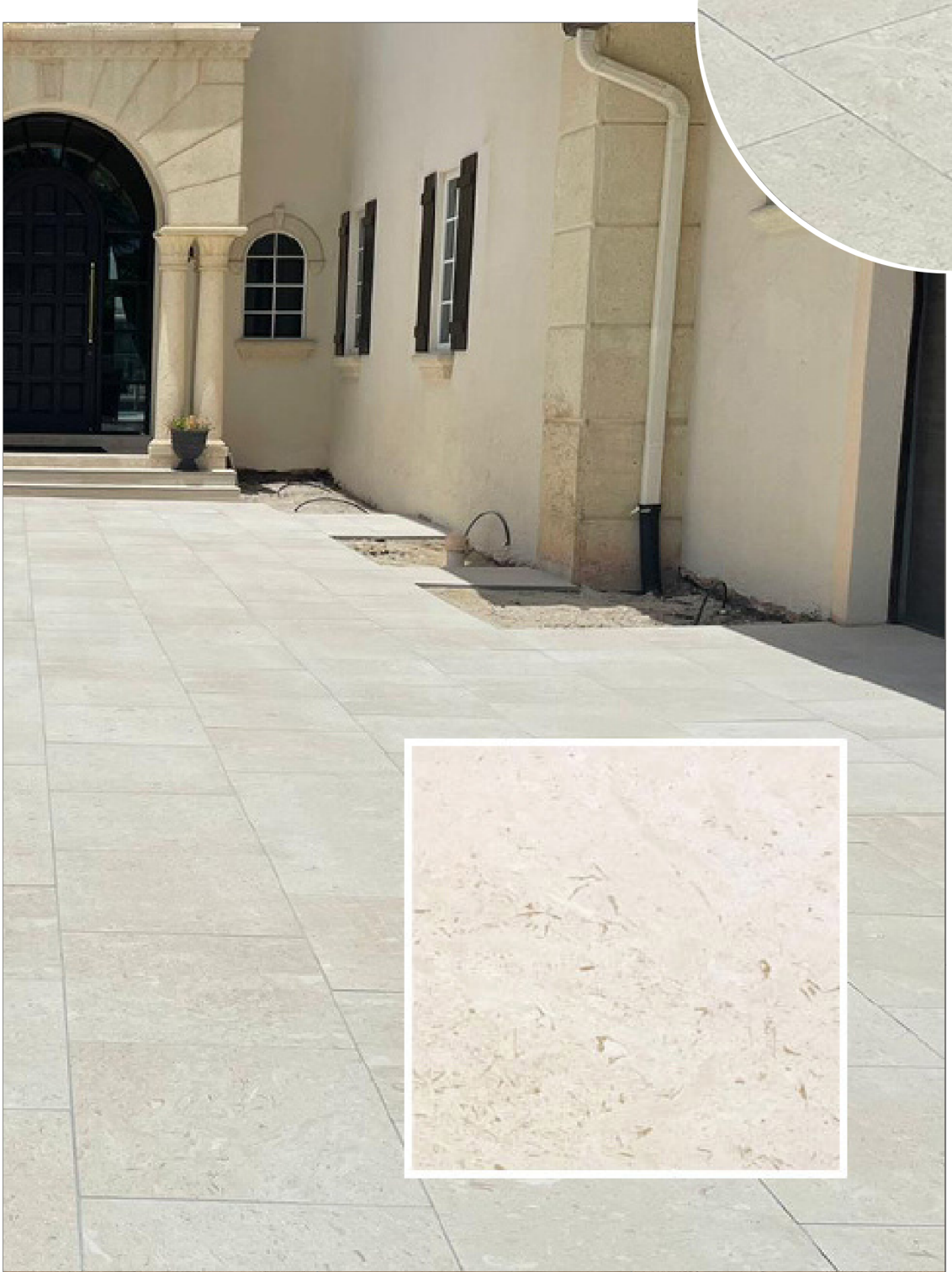
CSP1328
16" x 32" rectified
40 x 80 cm

HERITAGE SERIES | Seaside Stone



1 3/16" thickness

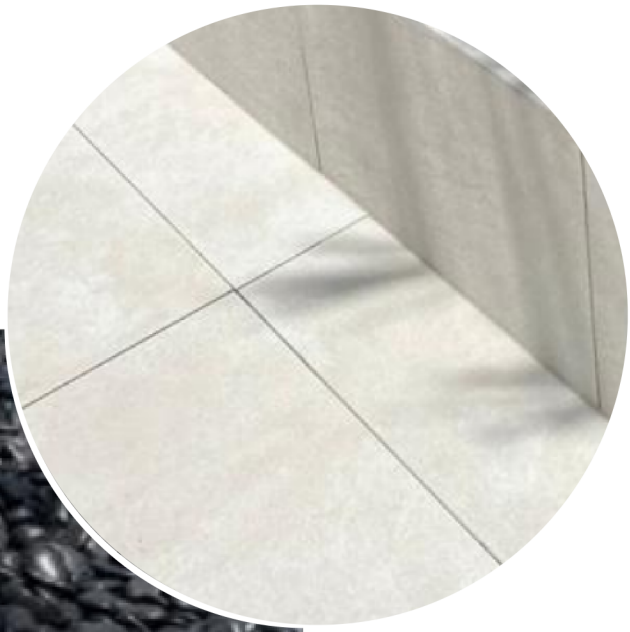
CSP1329
24" x 24" rectified
61 x 61 cm



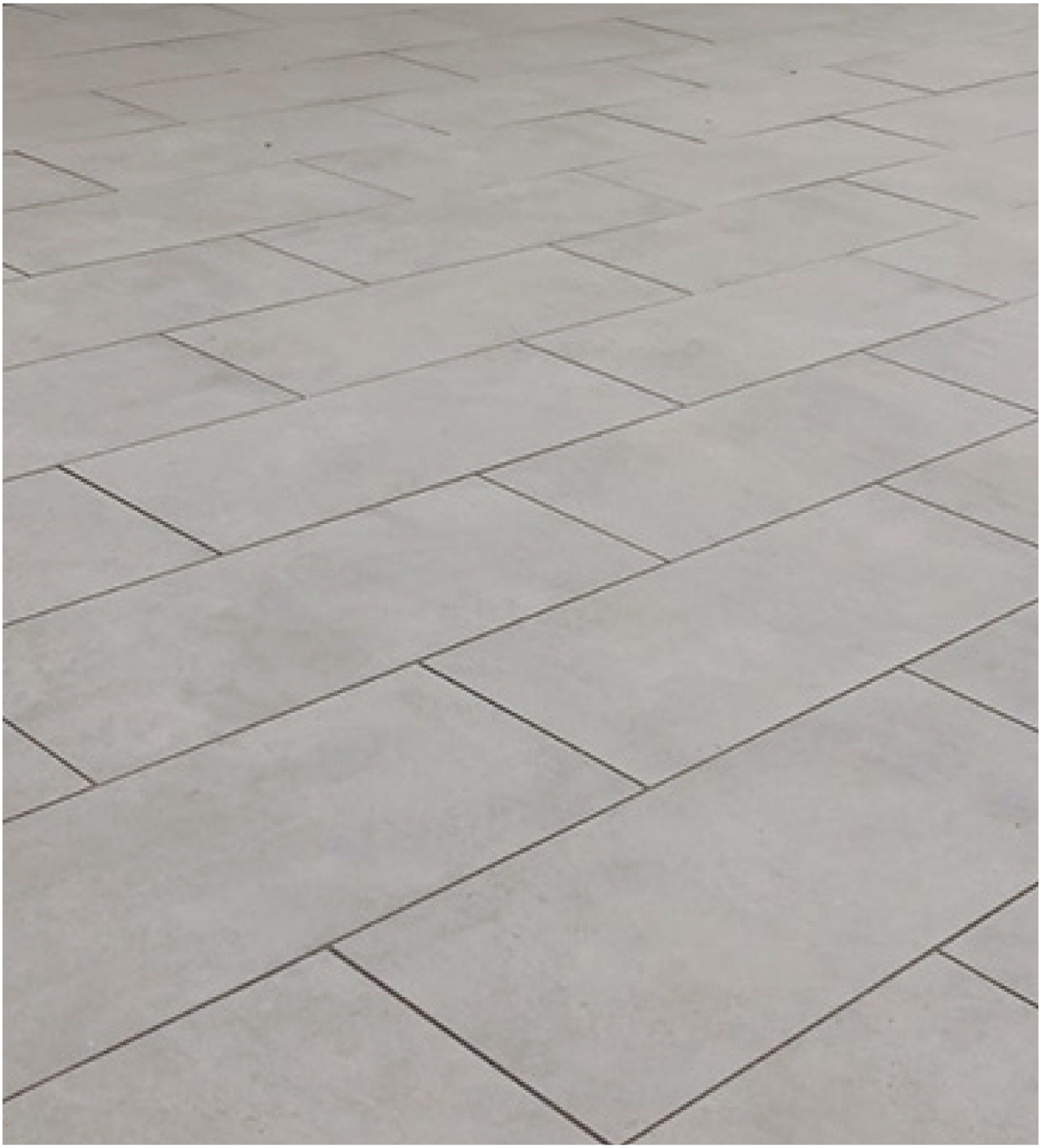
GRANITE SERIES | Shingle Beige

1 3/16" thickness

CSP1329
16" x 32" rectified
40 x 80 cm



GRANITE SERIES | Aztec Grey



1 3/16" thickness

CSP1331
16" x 32" rectified
40 x 80 cm

GRANITE SERIES | Cavern Sand

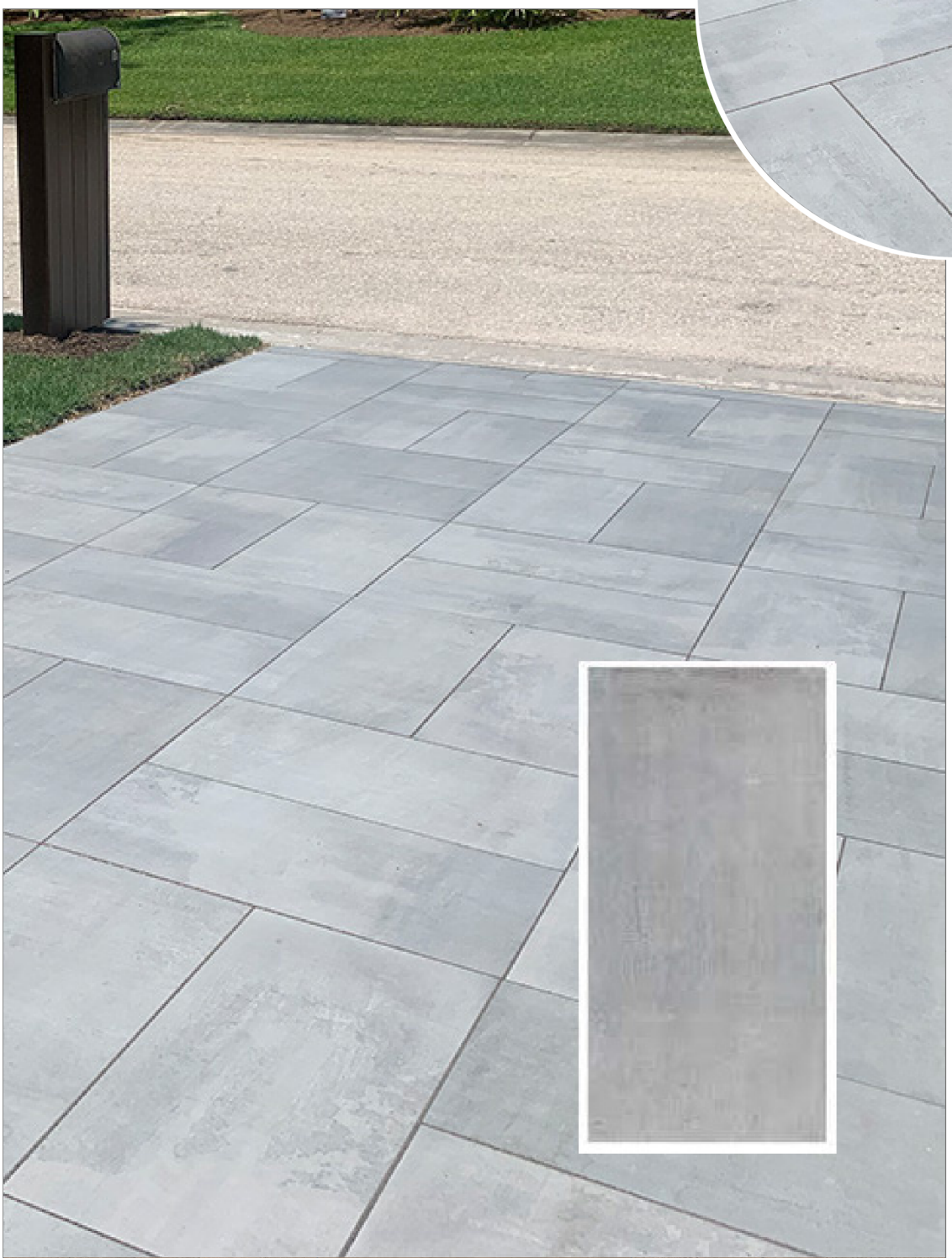
1 3/16" thickness

CSP1332
16" x 32" rectified
40 x 80 cm

GRANITE SERIES | Bedrock Mist

1 3/16" thickness

CSP1333
16" x 32" rectified
40 x 80 cm



GRANITE SERIES | Northern Snow

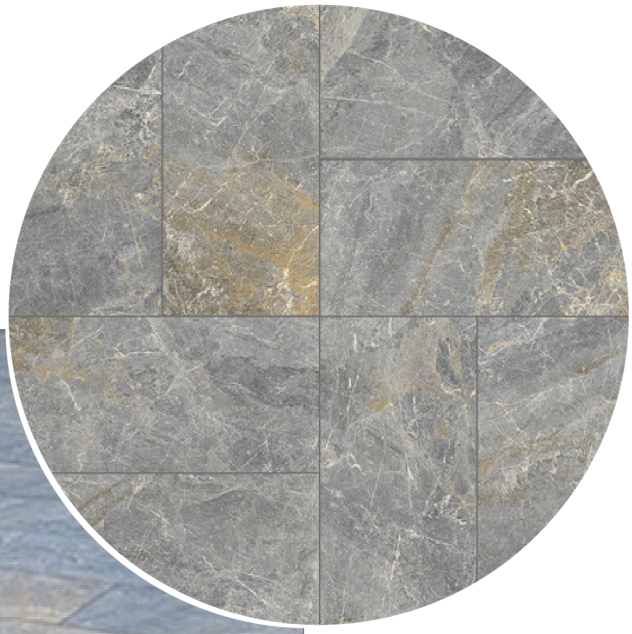
1 3/16" thickness

CSP1334
16" x 32" rectified
40 x 80 cm

GRANITE SERIES | Gabbro

1 3/16" thickness

CSP1335
16" x 32" rectified
40 x 80 cm

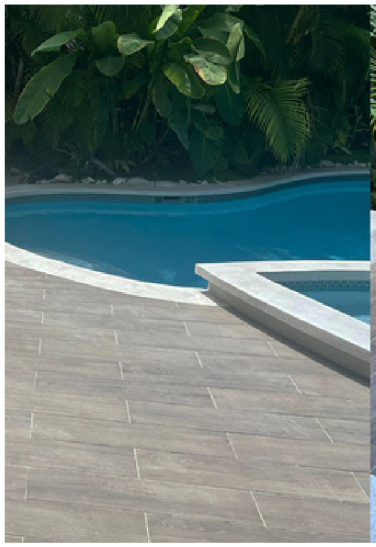


GRANITE SERIES | Cement Grey

1 3/16" thickness

CSP1336
16" x 32" rectified
40 x 80 cm

WOOD SERIES | Light Oak



1 3/16" thickness

CSP1337
8" x 32" rectified
20 x 80 cm

WOOD SERIES | Grey Oak

1 3/16" thickness

CSP1338
8" x 32" rectified
20 x 80 cm

LAYING INSTRUCTION

Laying 2 cm - 3/4" in outdoor

Consequently, the size and nature of the porcelain stoneware slabs, due to the pronounced anti-slip surface (which always retains a thin layer of water), special attention should be given to the slope and inclination %, that the customer wants to give to the floor plan and direction laying of the slab stoneware. The % of slope and slope of the floor must meets the architectural choices of the project and the needs for natural runoff of rainwater. These vary according to the geographical area, orientation and exposure of the affected area, if it is completely bare, etc. etc.
By way of example, not binding, of the Swiss office UPI, recommends slopes not less than 1, 5% per linear meter.

Cutting

To cut 2 cm - 3/4" make the measurements needed and mark the part to be removed on the piece, then cut with an electric tool or water-cooled circular construction saw.

The Doghe (grout staves) Porcelain Paver and "Antique/Natural Wood Series" 60x60 - 23½"x23½" (1 cm - 0.39")

Consequently the special structure (bas-relief grooves) which reproduces a wood grooves effect the exterior staves dimensions of each piece may have subtle differences from inner staves. This due to the caliber of production that can have significant dimensional variations to each production. Unfortunately this affects the outside slats only.
For this reason the products concerned must have a minimum aesthetic tolerances, to improve then we may recommend the following countermeasures:

1. To use pedestals with crosses of at least 4 mm - 0.15" in order to have the same size for the joint (Porcelain Paver). In the traditional installation use crosses to 4 mm - 0.15" (the aim is repeating the same internal dimensioning leakage per piece).

2. To lay down the material following always the same production (verifiable from the back of the slab).

3. Adopt the basket diagram laying.

Thermal expansions effects on surfaces

The strong thermal excursions (-15° + 70°) which are subjected the FLAT ROOFS, involve the need to consider the effects on building materials.
Materials that often have among their different COEFFICIENT of dilatation.
The regulations provide for the establishment of special ELASTIC expansion JOINTS in building structures, in the perimeter and in the fractionation of insoles.
Our Flooring as well as having its own THERMAL EXPANSION COEFFICIENT and their dynamic behavior, they lay down and are installed on foundations and structures that move.
They contract and dilate in measure also important depending on the size even for some cm.
The effect that you might encounter in relation to the use of dry flooring is a misalignment of joints in release of raised floor or uncoupling the plastic module. If they would be glued flooring instead, they might break and deteriorate.
It is therefore essential to avoid or limiting the occurrence of these flaws, making a large perimeter joints and avoiding, where possible, the stationing of heavy weights/structures that inhibit the correct movement of the flooring. It is necessary to split up the flooring area in the case of plastic module also at the slope change of the base.
To do this, it is advisable to use the accessories provided in the catalog and elastic joints/shackles available normally at specialty retailers.

Temperature

The product gets hot in the sun. Darker color more than lighter color. For more information contact us.

Recommendations for Cityscape Porcelain Pavers on elevated installation

The Monolithic product Porcelain Pavers self-carrying 2.0 is definitely suitable for external use for support and elevated installation. There is no specific legislation for outdoor products in porcelain in elevation, the closest to our product is relating to the cement slabs (concrete).
To this legislation our Porcelain Paver RESPONDS IMPROVEMENT on all comparative tests, e.g. resists more then 1400 kg per slab (test result as per EN 1339 KN 14 ›).
This means, according to the adopted standard, the material is suitable for "COLLECTIVE and public use without LIMITATION of the height of the pedestals or sleepers".

If we compare our product Porcelain Paver to the elevated indoor norms, his weakness point is the LOAD/DYNAMIC HARD body SHOCK (for example a hard object fall such as a hammer or other rigid material of less than 4.5 kg from 40 cm - 16" height) EN 12825.
In fact the particular stiffness of the gres porcelain does not help us, because the gres slab can break or shatter, we must therefore consider this risk and in face of this advise in some uses such as mechanical workshop or where floor heights are higher than the 3.93" (10 cm) using reinforcements to be applied on the back of the slabs:

Metal Tray

SHOCK CONTROL® protective layer

These applications do not increase the floor weight capacity, but they are just a guarantee against breakage and limit the risk of accidents.

Wind Uplift

When Cityscape Porcelain pavers single slab are installed on a pedestal system, they essentially rely on gravity, its own weight equal to 35lb, 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.

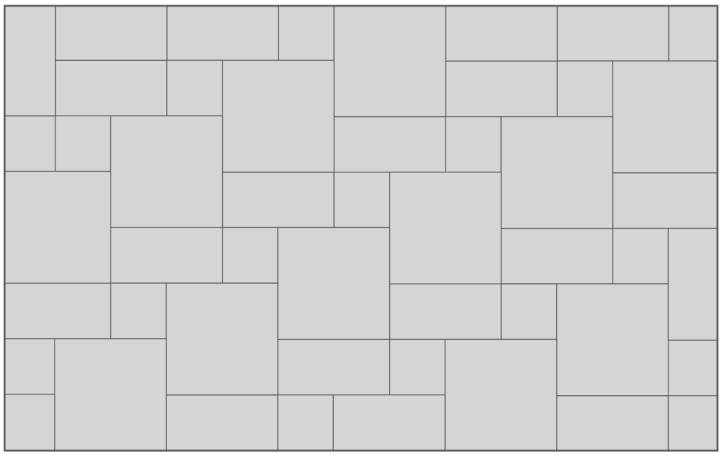
The Saffir-Simpson Hurricane Wind Scale defines wind speeds over 74 mph to be hurricane velocity, where for example it is stated that a Category 1 (74-95mph) storm means: 'Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and 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 Cityscape 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, Cityscape 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.

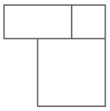
This report is intended to provide additional information about wind uplift where ¾" single slab porcelain pavers as supplied by Cityscape are installed on fixed or adjustable height pedestals. It should not be construed as a guarantee or warranty of any kind, including but not limited to warranties 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 Cityscape .

The test report is available on request from Cityscape 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 Cityscape specific permission.

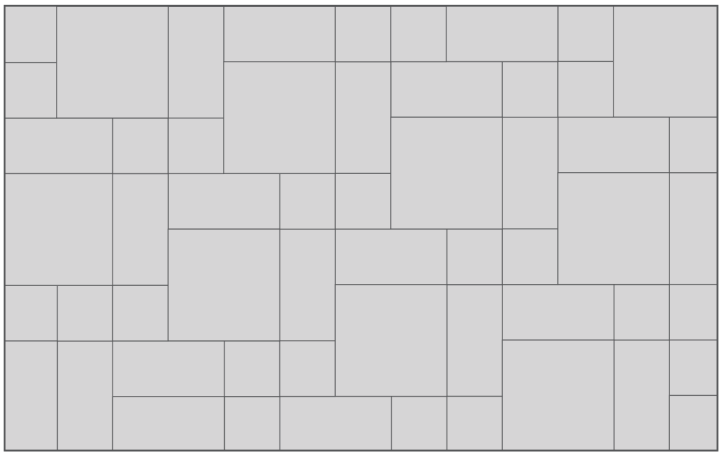
2CM PATTERNS



pattern A

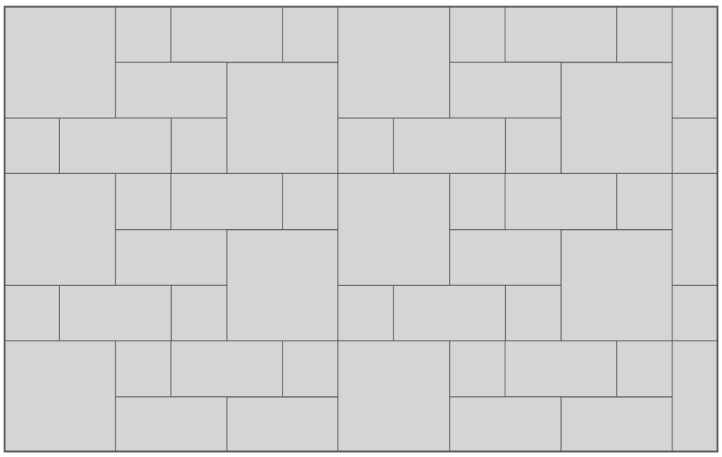


Nr. 1 pcs	23⅓"x 23⅓" - 60x60cm	57,2%
Nr. 1 pcs	11¾"x 23⅓" - 30x60cm	28,5%
Nr. 1 pcs	11¾"x 11¾" - 30x30cm	14,3%

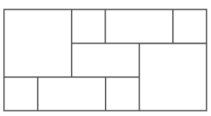


pattern B

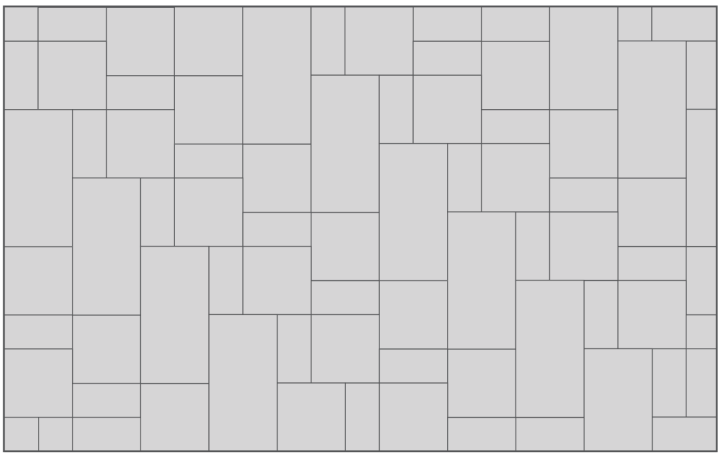
Nr. 1 pcs	23⅓"x 23⅓" - 60x60cm	40%
Nr. 2 pcs	11¾"x 23⅓" - 30x60cm	40%
Nr. 2 pcs	11¾"x 11¾" - 30x30cm	20%



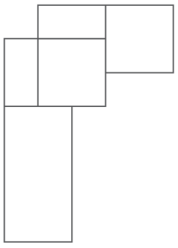
pattern C



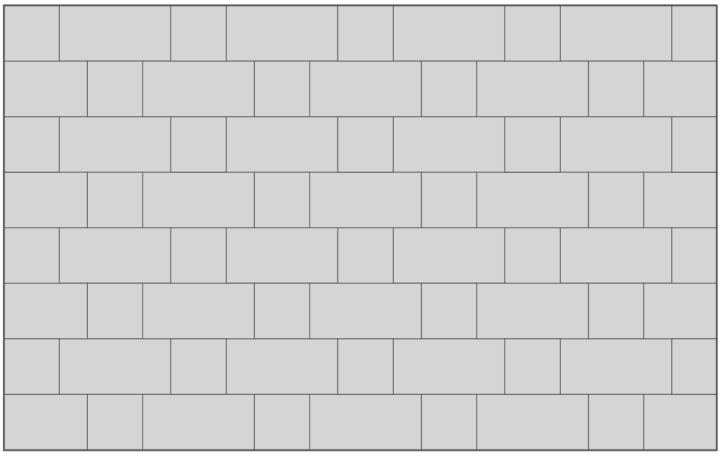
Nr. 2 pcs	23⅓"x 23⅓" - 60x60cm	44,5%
Nr. 3 pcs	11¾"x 23⅓" - 30x60cm	33,3%
Nr. 4 pcs	11¾"x 11¾" - 30x30cm	22,2%



pattern D

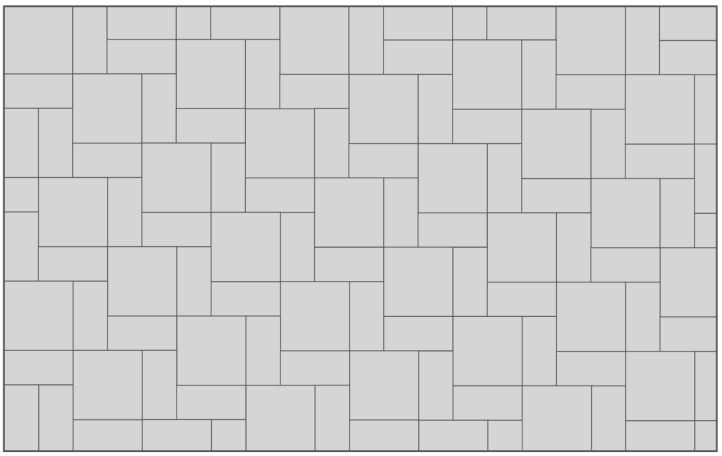


Nr. 1 pcs	23⅓"x 47⅛" - 60x120cm	
Nr. 2 pcs	23⅓"x 23⅓" - 60x60cm	
Nr. 2 pcs	11¾"x 23⅓" - 30x60cm	



pattern E

Nr. 1 pcs	23⅓"x 23⅓" - 60x60cm	66,7%
Nr. 1 pcs	11¾"x 23⅓" - 30x60cm	33,3%



pattern F

Nr. 1 pcs	23⅓"x 23⅓" - 60x60cm	50%
Nr. 2 pcs	11¾"x 23⅓" - 30x60cm	50%

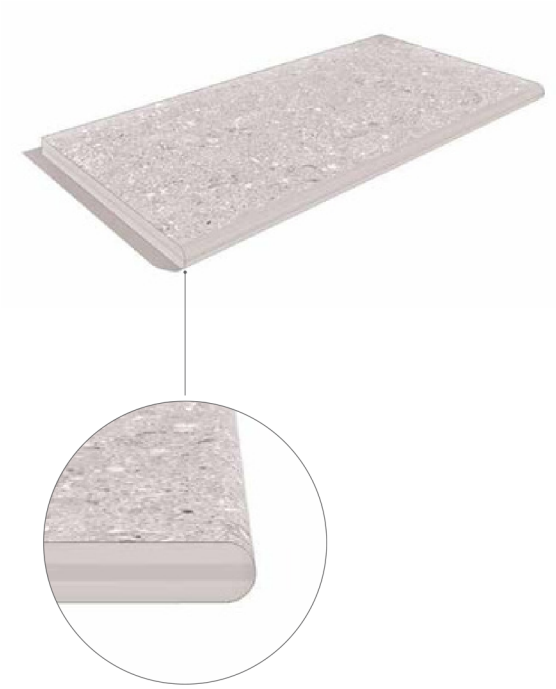
2CM SPECIAL PIECES

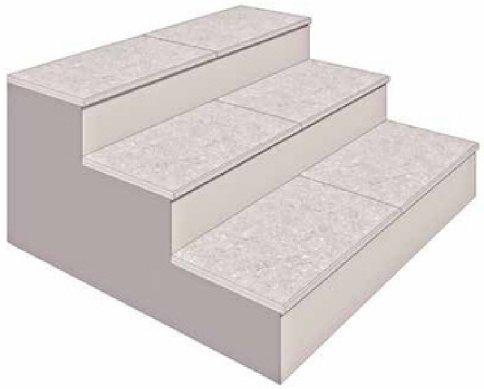
DOUBLE BEVEL COPING

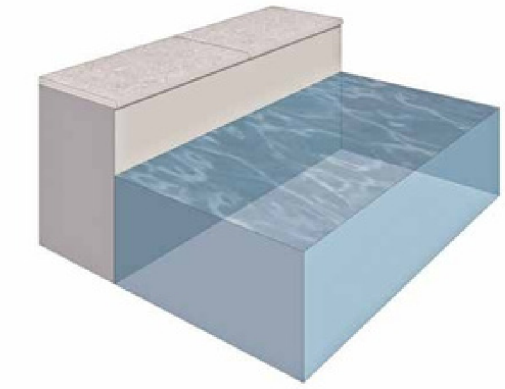
30x60 - 11¾"x 23½"
Available in all colors.

FULL BULLNOSE COPING

30x60 - 11¾"x 23½"
Available in all colours.

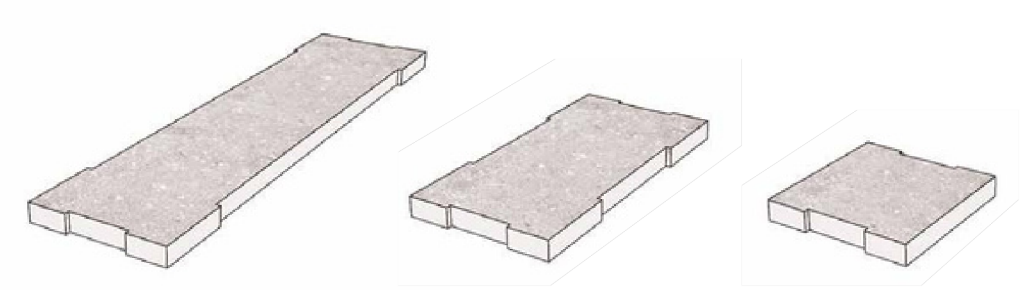






BLIND GRID

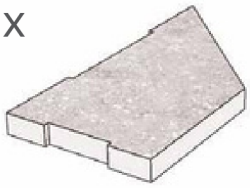
15x60 cm 6”x24” rectified / 15x30 cm 6”x12” rectified / 15x15 cm 6”x6” rectified
Available in all colours.



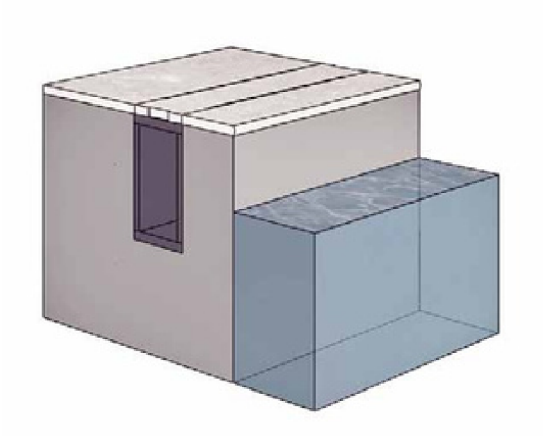
BLIND GRID ANGLE

15x15x30 cm 6”x6”x12” rectified
Available in all colours.

SX



DX



2CM PACKAGING

2.0 MONOLITHIC RECTIFIED CERAMIC TILE	Thickness	Unit / Box	SqFt / Box	Boxes / Pallet	SqFt / Pallet	Weight / Box	Weight / M²	Weight / SqFt	Weight / Pallet	Pallet Size
23½"x47⅛"	3/4" - 20mm	2	15.5	16	248	133.765 lb	92.90 lb	8.630 lb	2.165 lb	29"x 49"
11¾"x47⅛"	3/4" - 20mm	4	15.5	16	248	138.415 lb	96.12 lb	8.93 lb	2.230 lb	29"x 49"
23½"x23½"	3/4" - 20mm	2	7.75	36	279	66.10 lb	91.80 lb	8.530 lb	2.421 lb	42"x 42"
11¾"x23½"	3/4" - 20mm	4	7.75	40	310	65.875 lb	91.50 lb	8.5 lb	2.676 lb	42"x 42"
11¾"x11¾"	3/4" - 20mm	5	4.85	45	218.25	41.50 lb	57.64 lb	8.55 lb	1.910 lb	42"x 42"

SHADE VARIATION

V1 uniform appearance

V2 slight variation

V3 moderate variation

V4 substantial variation

2CM TECHNICAL CHARACTERISTICS

STANDARDS	CHARACTERISTICS OR PROPERTIES	COMPLIANCE WITH STANDARDS UNI EN 14411 G wASTM	DECLARED VALUE
ISO - 10545-3 ASTM - C 373-88	Water absorption	E ‹ = 0.5 %	‹ 0.1 %
ISO - 10545-9 ASTM - C 484	Thermal shock resistance	Requested	Complies with standard
ISO - 10545-12 ASTM - C 1026	Frost resistance	Requested	Complies with standard
ISO - 10545-6 ASTM C - 1243-93	Abrasive wear	‹175 mm^2	139 mm^2
ISO - 10545-2	Straightness / ASTM - C 485	+/- 0.75 % (+/- 1.8 mm)	Complies with standard
	Straightness / ISO - 10545-2	+/- 0.5 % (+/- 1.5 mm)	Complies with standard
	Thickness / ASTM - C 499	+/- 1.02 mm	Complies with standard
	Thickness / ISO - 10545-2	+/- 0.5 % (+/- 0.5 mm)	Complies with standard
	Length and width / ASTM - C499	+/- 0.5 % (+/- 2.0 mm)	Complies with standard
	Length and width / ISO - 10545-2	+/- 0.6 % (+/- 2.0 mm)	Complies with standard
ISO - 10545-2 Bending strength in N (thickness › = 7.5 mm)	ASTM - C 648	› = 250 LBF Average	› = 225 LBF Individual
	ISO - 10545-4	› = 1300 Newton	› 13000
ASTM - C 650	Chemical resistance	As reported	Resistant
ISO 10545-14	Resistance to stain	-	5
ISO 10545-13	Chemical resistance	UB min.	UA ULA UHA
ISO 10545-8	Coefficient of linear thermal-expansion	-	α=6.3x10^{-6} ○C^{-1}
ISO 10545-5	Impact resistance	-	0.88
EN 12825	Static load	-	Centre 9.6 Kn Centre point of sides 6.5 Kn Diagonal 8.19 Kn (CLASSE 3)
	Dynamic laod capacity - hand object impact test	-	Test not passed
	Dynamic laod capacity - soft object impact test	-	Test passed
EN 1339	Bendind strength - breaking force in N	Kn 14.38	classe 14
ENV 12633	Slip resistance	› / = CL1	CL 2
DIN 51130	Slip resistance	-	R11
DIN 51097	Slip resistance	-	A + B + C min.
DM 236/89 B.C.R.A	Slip resistance	-	› 0.40
Static coefficient of friction ASTM 1028-07 BOT 3000 Dynamic coefficient of friction (section 9.6 ANSIA 137.1 2012)	Slip resistance	-	› 0.60 WEST › 0.60 DRY › 0.42
EN 13501-1	Fire resistance	-	A1 - A1 FL
***TAS 108 FLORIDA BUILDING CODE WIND UP LIFT TEST**	3.4" thick 24"x24" porcelain installed on fixed height pedestals and 45○ wind angle was blow of at	-	130 mph with no parapet 150 mpt with 12" high parapet

CITYSCAPE
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