

PO PA 2.0 ORGANIZER

An Italian porcelain paver made in USA





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RE-QUALIFY SYSTEM



Re-Qualify System is the Kronos innovative approach to the Green and Eco-Sustainability.

Re-Qualify System is the new philosophy of Kronos, an original approach with the aim to minimize the environmental impact in renovation or new construction projects realized by:

- reducing or fully 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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KRONOS GREEN APPROACH



CO2 REDUCTION

In the last 10 years Kronos 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

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

RECYCLING PROCESS: ZERO WASTE

Kronos 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 Kronos to use pre-and-post consumer waste to create a body layer and thus a high quality tile.

Kronos 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

Kronos 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.

H2O 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.

Kronos 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.

Kronos tiles and slabs have a very long-life cycle. From a technical point of view, Kronos 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 Kronos.

Kronos 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 Kronos 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 Kronos Porcelain Pavers are dry installed, while the use of traditional setting materials requests time and cure after the collocation. Kronos Porcelain Pavers dry installation also significantly reduces the creation of dusts and pollutants. People living in spaces where the Kronos 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

POPA 2.0 is a product with high aesthetic and technical characteristics, adaptable and functional for any outdoor environment.

COMMERCIAL AREAS:

Dehors, 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



Kronos 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)

Kronos 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 Kronos USA raw materials are quarried in the 500 miles radius. Therefore Kronos 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 Kronos 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 Kronos 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)

Kronos USA tiles are produced in manufacturing plants which have got the prestigious ecological mark ECOLABEL (EU Regulation 2002/272/EC).

These plants have 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 Kronos USA products and manufacturing sites;
- healthcare of Kronos USA workers and customers.

WHY CHOOSE POPA 2.0?

- 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

ICON TRAVERTINE | *Tivoli's Avorio*

CROSS CUT



3/4" thickness

V3 moderate variation



US7969
23 1/2" x 47 1/8" rectified
60 x 120 cm



US7954
23 1/2" x 23 1/2" rectified
60 x 60 cm



1100460
11 3/4" x 23 1/2" rectified
30 x 60 cm



US7960
11 3/4" x 11 3/4" rectified
30 x 30 cm



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ICON TRAVERTINE | *Tivoli's Crema*

CROSS CUT



3/4" thickness

V3 moderate variation



US7970
23 1/2" x 47 1/2" rectified
60x120 cm



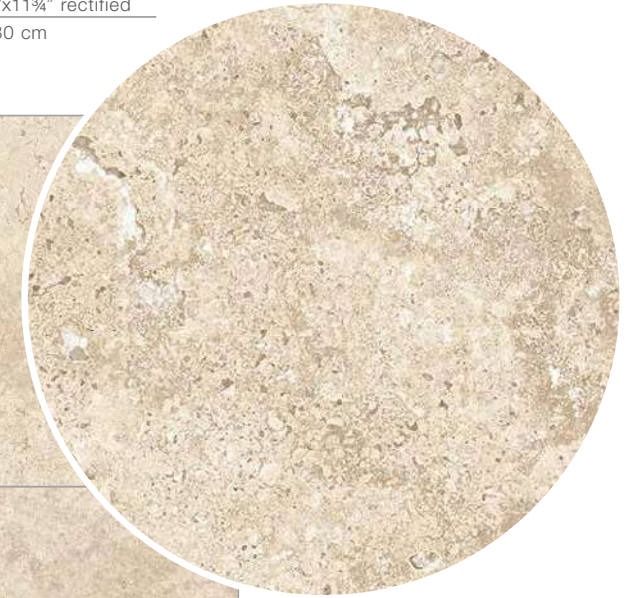
US7956
23 1/2" x 23 1/2" rectified
60x60 cm



1100462
11 3/4" x 23 1/2" rectified
30x60 cm



US7962
11 3/4" x 11 3/4" rectified
30x30 cm



ICON TRAVERTINE | *Tivoli's Walnut*

CROSS CUT

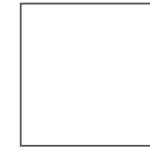


3/4" thickness

V3 moderate variation



US7971
 23 1/2" x 47 1/2" rectified
 60 x 120 cm



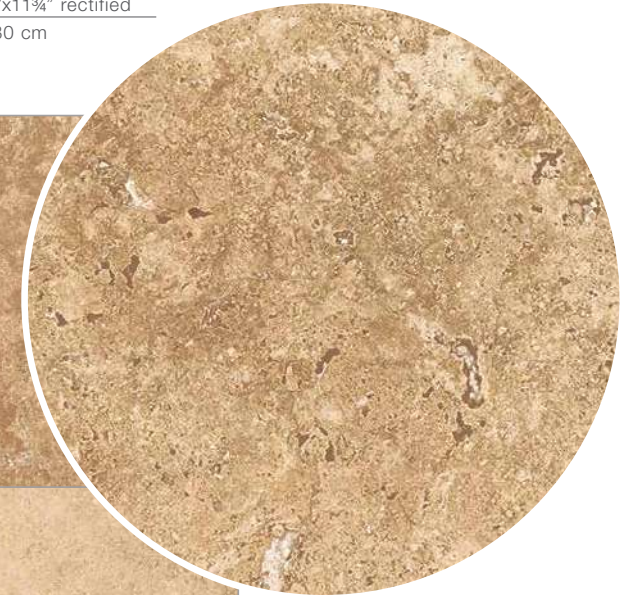
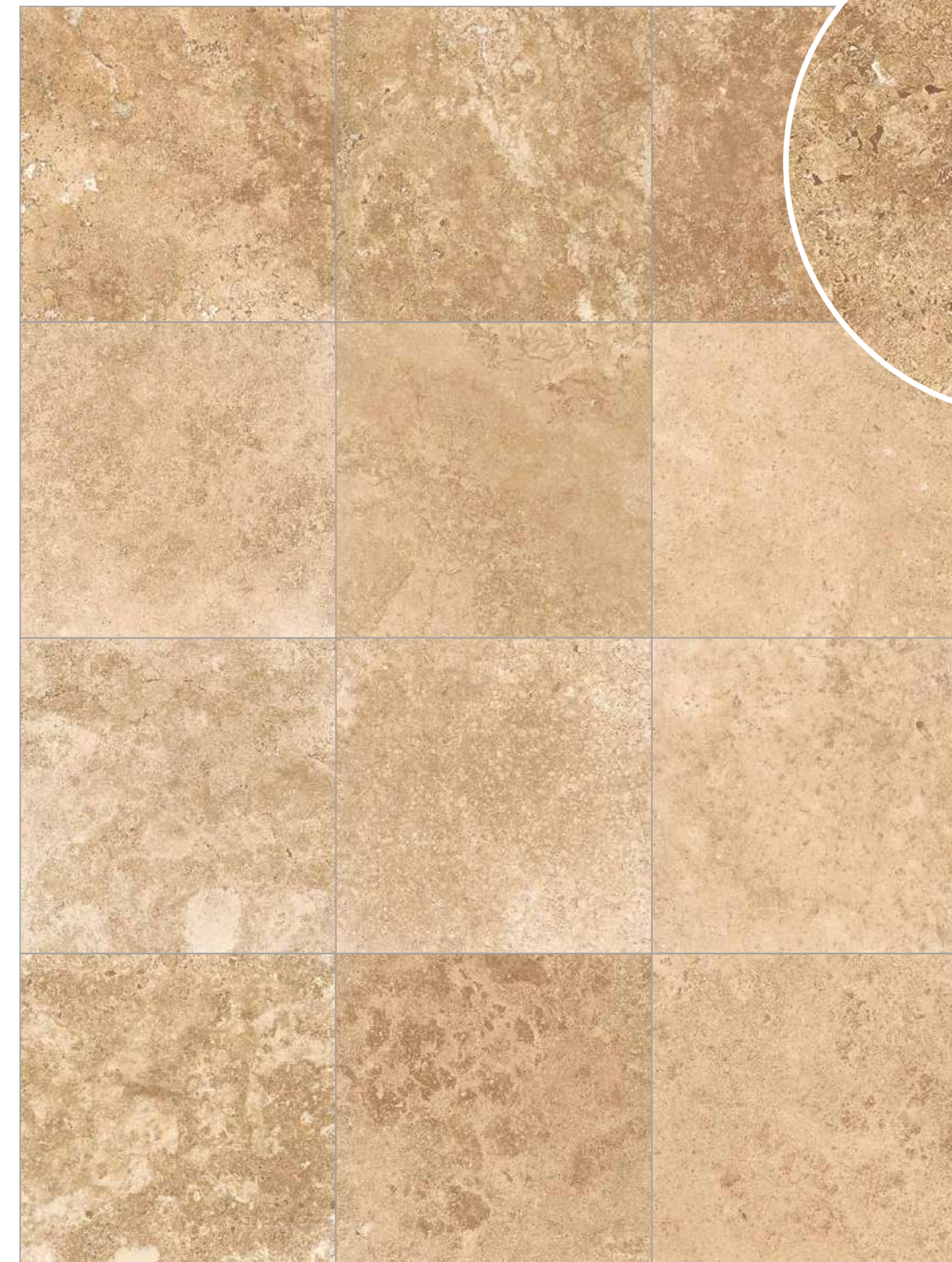
US7955
 23 1/2" x 23 1/2" rectified
 60 x 60 cm



1100461
 11 3/4" x 23 1/2" rectified
 30 x 60 cm



US7961
 11 3/4" x 11 3/4" rectified
 30 x 30 cm



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ICON TRAVERTINE | *Andes Silver*

CROSS CUT

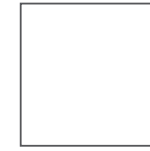


3/4" thickness

V4 substantial variation



US7966
 23 1/2" x 47 1/8" rectified
 60 x 120 cm



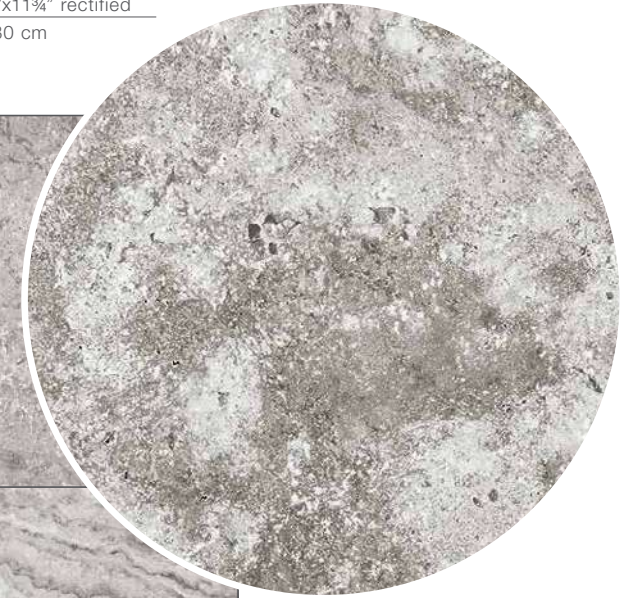
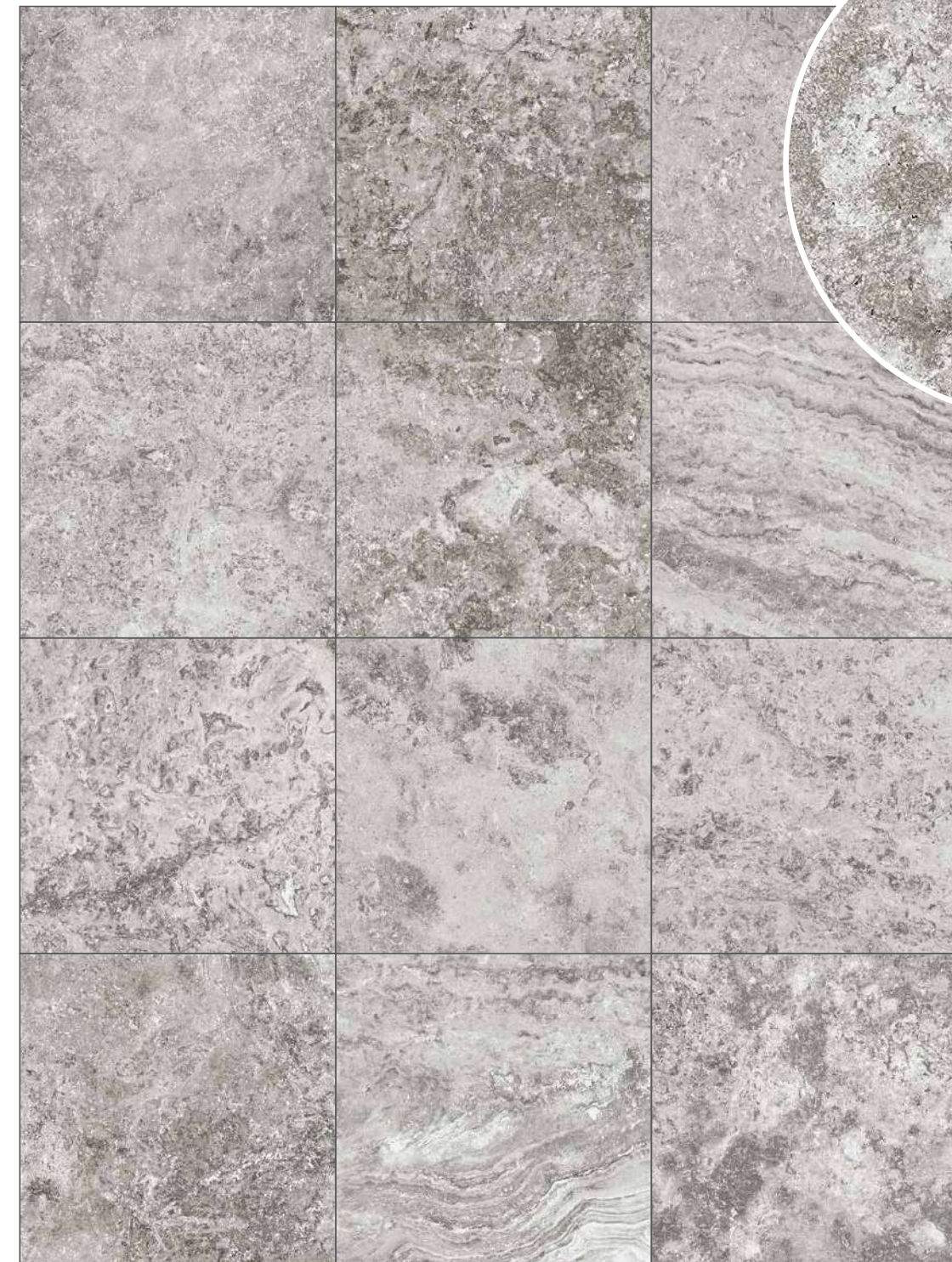
US7957
 23 1/2" x 23 1/2" rectified
 60 x 60 cm



1100463
 11 3/4" x 23 1/2" rectified
 30 x 60 cm



US7963
 11 3/4" x 11 3/4" rectified
 30 x 30 cm



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ICON TRAVERTINE | *Andes Shell*

CROSS CUT

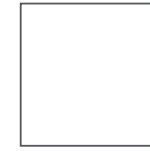


3/4" thickness

V4 substantial variation



US7967
 23 1/2" x 47 1/2" rectified
 60x120 cm



US7958
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100464
 11 3/4" x 23 1/2" rectified
 30x60 cm



US7964
 11 3/4" x 11 3/4" rectified
 30x30 cm



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ICON TRAVERTINE | *Andes Cappuccino*

CROSS CUT



3/4" thickness

V4 substantial variation



US7968
23 1/2" x 47 1/2" rectified
60 x 120 cm



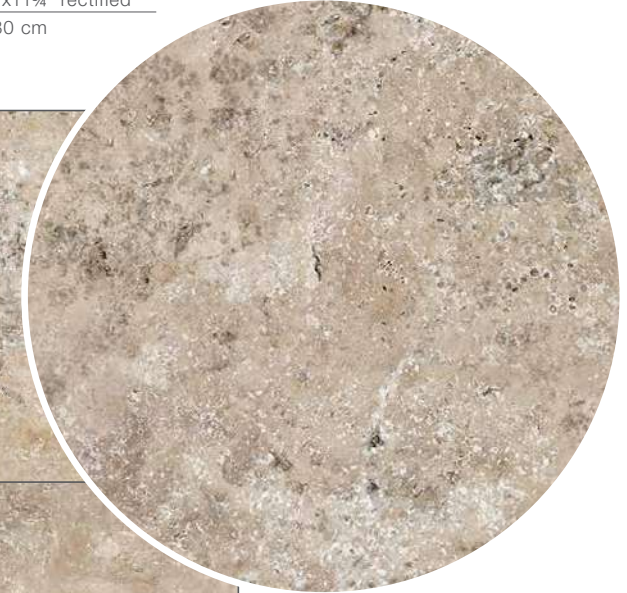
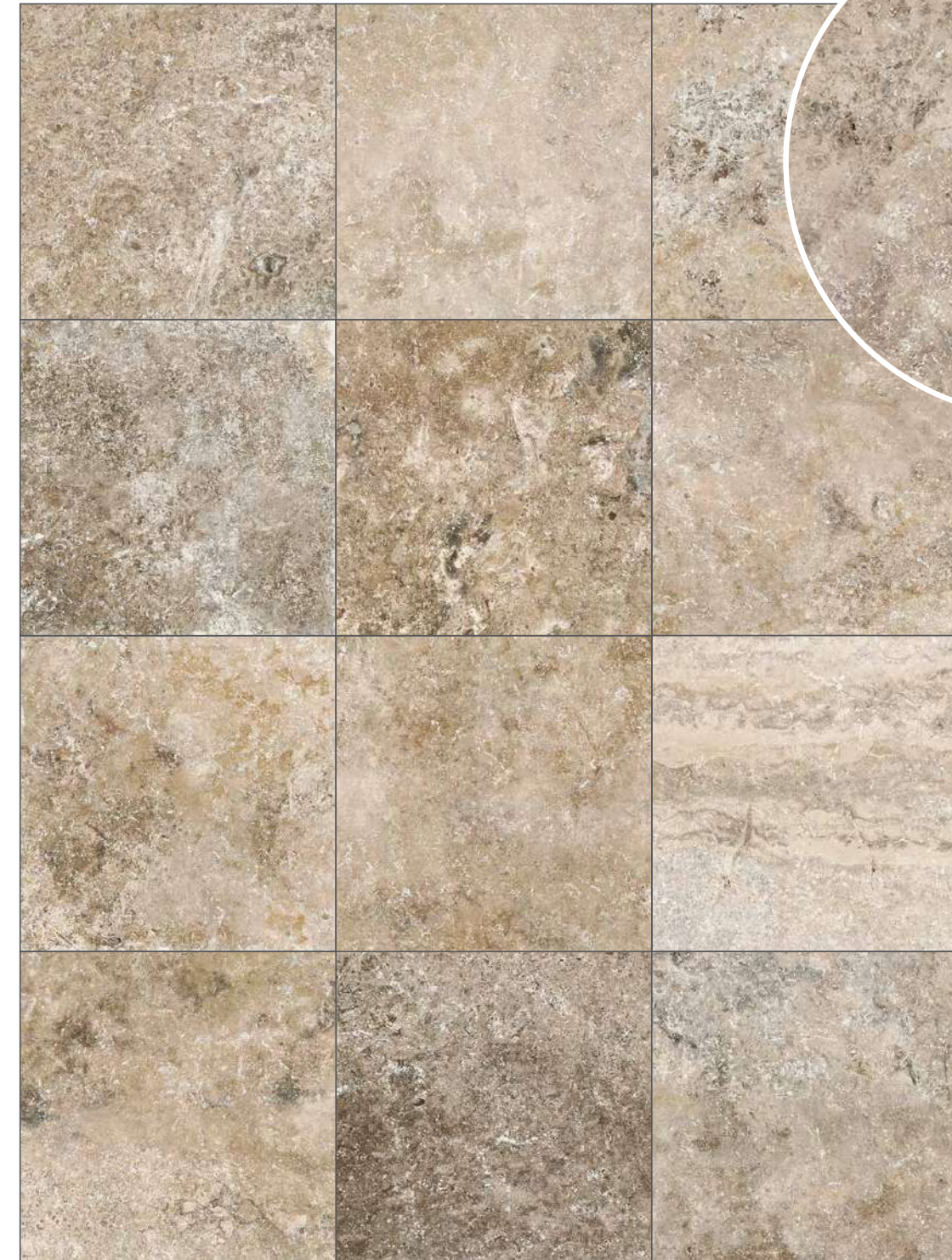
US7959
23 1/2" x 23 1/2" rectified
60 x 60 cm



1100465
11 3/4" x 23 1/2" rectified
30 x 60 cm



US7965
11 3/4" x 11 3/4" rectified
30 x 30 cm



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ICON TRAVERTINE | Pearl



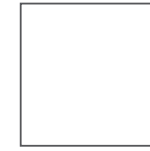
VEIN CUT
ITALIAN

3/4" thickness

V2
slight
variation



US7943
23 1/2" x 47 1/8" rectified
60 x 120 cm



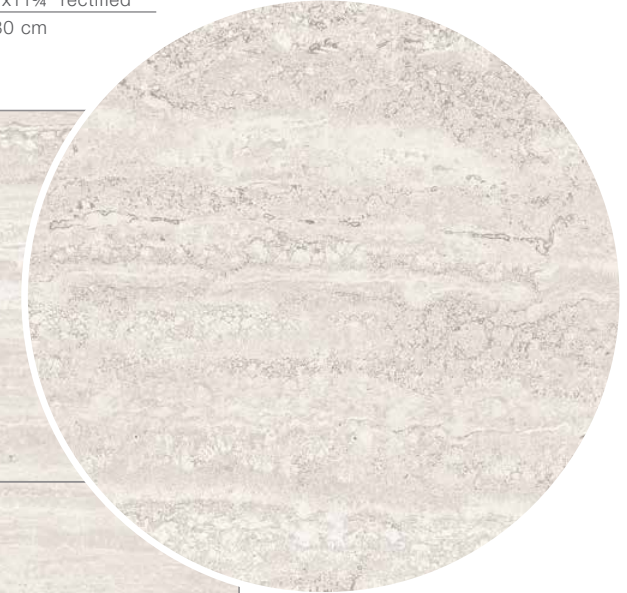
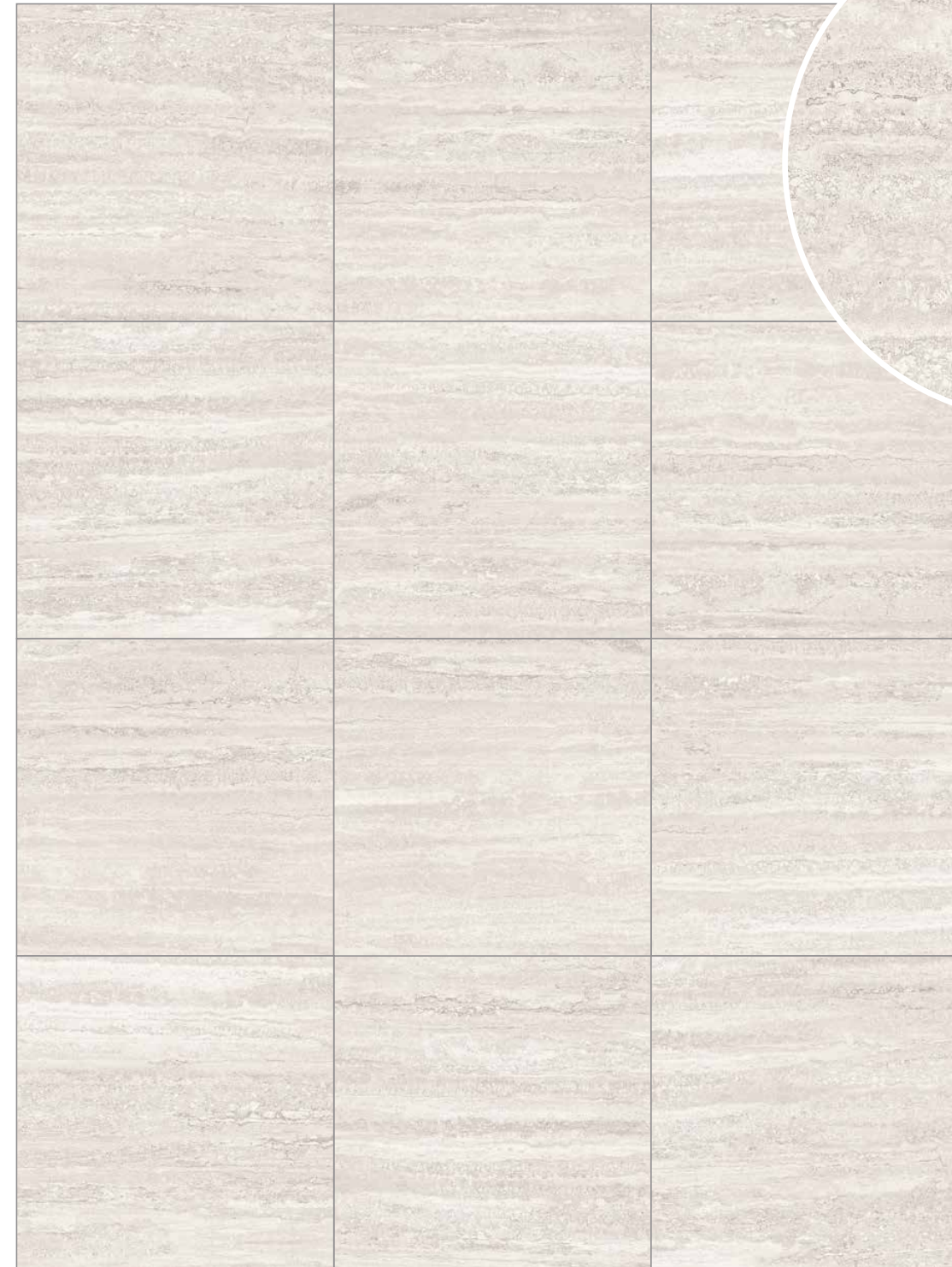
US7908
23 1/2" x 23 1/2" rectified
60 x 60 cm



1100015
11 3/4" x 23 1/2" rectified
30 x 60 cm



US7944
11 3/4" x 11 3/4" rectified
30 x 30 cm



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ICON TRAVERTINE | *River*



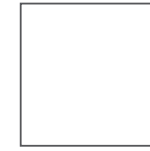
VEIN CUT
ITALIAN

3/4" thickness

V2
slight
variation



US7945
23 1/2" x 47 1/2" rectified
60 x 120 cm



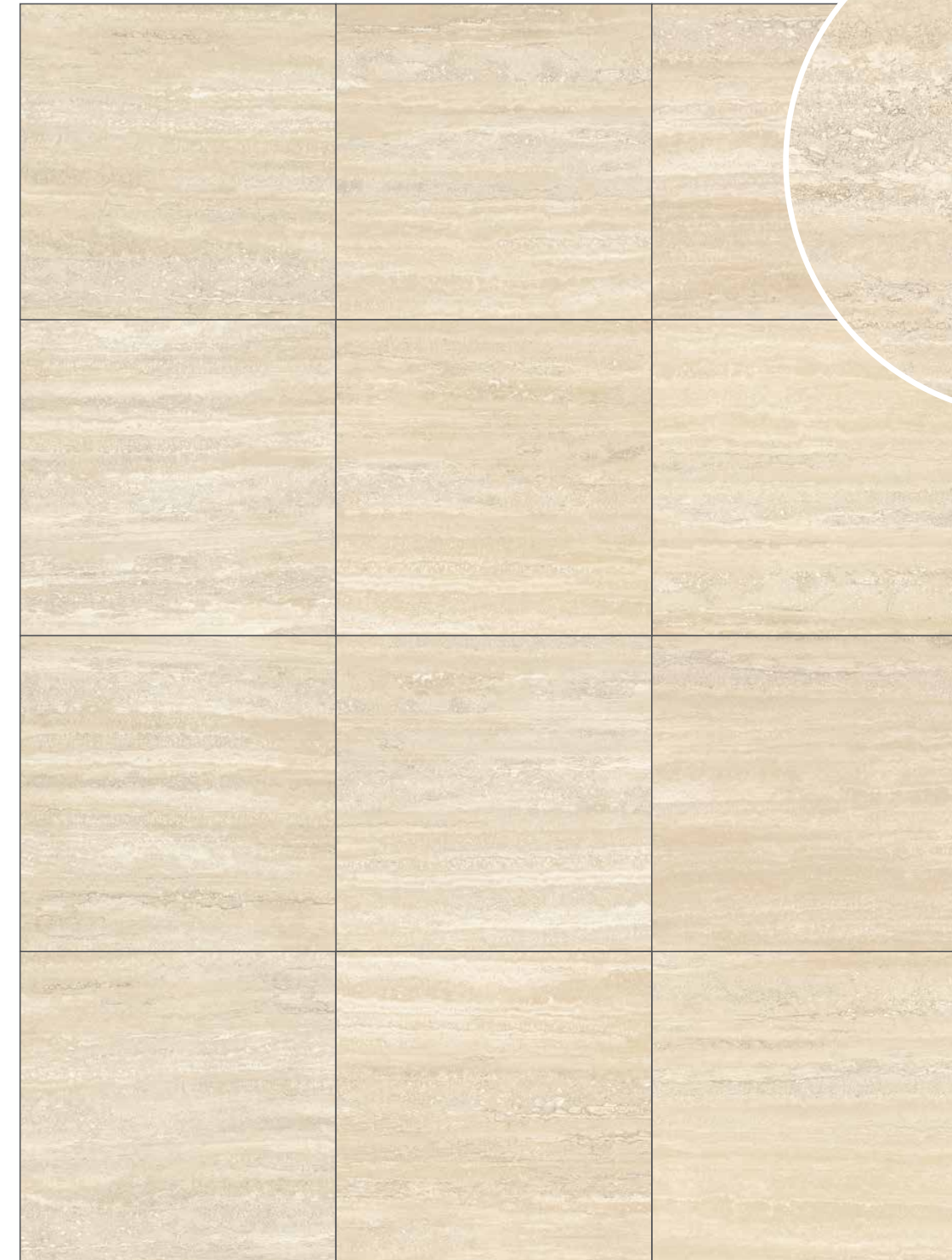
US7909
23 1/2" x 23 1/2" rectified
60 x 60 cm



1100016
11 3/4" x 23 1/2" rectified
30 x 60 cm



US7942
11 3/4" x 11 3/4" rectified
30 x 30 cm



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PENNSYLVANIA | Full Color Cleft Pattern



3/4" thickness

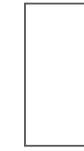
V4 substantial variation



US7920
 23 1/2" x 47 1/8" rectified
 60 x 120 cm



US7916
 23 1/8" x 23 1/8" rectified
 60 x 60 cm



1100457
 11 3/4" x 23 1/8" rectified
 30 x 60 cm



US7918
 11 3/4" x 11 3/4" rectified
 30 x 30 cm



US7922
 11 3/4" x 47 1/8" rectified
 30 x 120 cm



Cleft Pattern

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PENNSYLVANIA | *True Blue Thermal Pattern*



3/4" thickness

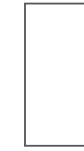
V3 moderate variation



US7921
 23 1/2" x 47 1/8" rectified
 60 x 120 cm



US7917
 23 1/8" x 23 1/8" rectified
 60 x 60 cm



1100458
 11 3/4" x 23 1/8" rectified
 30 x 60 cm



US7919
 11 3/4" x 11 3/4" rectified
 30 x 30 cm



US7923
 11 3/4" x 47 1/8" rectified
 30 x 120 cm



Thermal Pattern

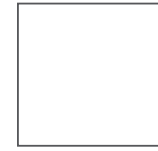
An italian porcelain paver made in USA

STONE | Moonstone



3/4" thickness

v2 slight variation



US7903
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100013
 11 3/4" x 23 1/2" rectified
 30x60 cm



An italian porcelain paver made in USA

STONE | Creamstone



3/4" thickness

V2 slight variation



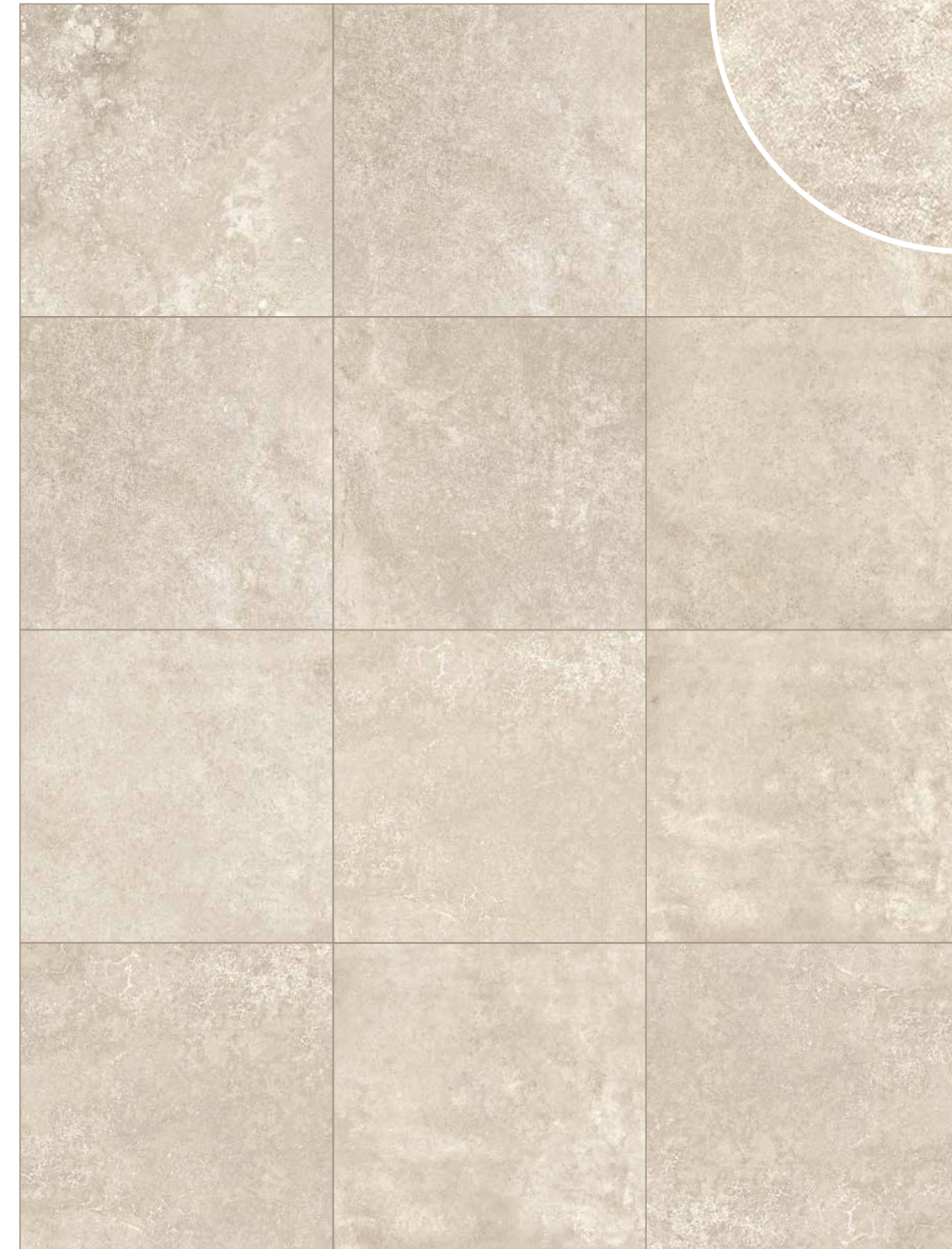
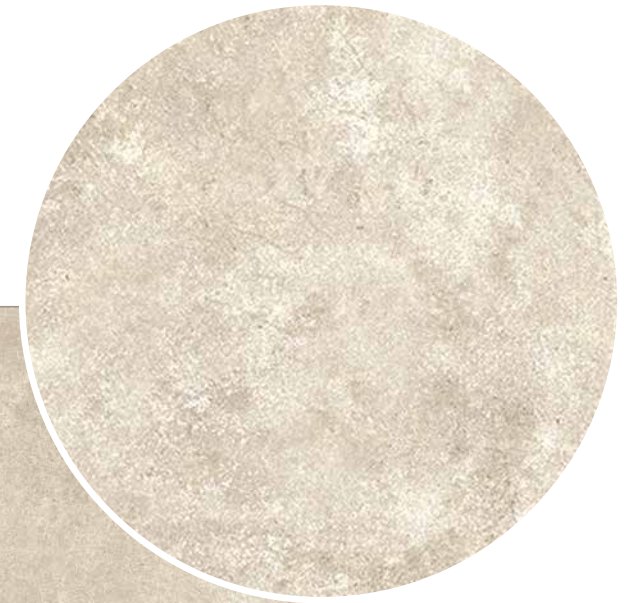
US7904
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100014
 11 3/4" x 23 1/2" rectified
 30x60 cm




US7940
 11 3/4" x 11 3/4" rectified
 30x30 cm



An Italian porcelain paver made in USA

STONE | *Multicolor*

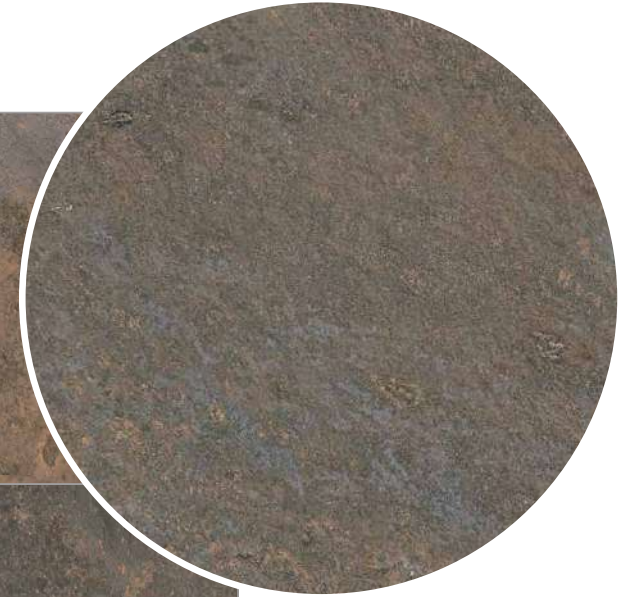
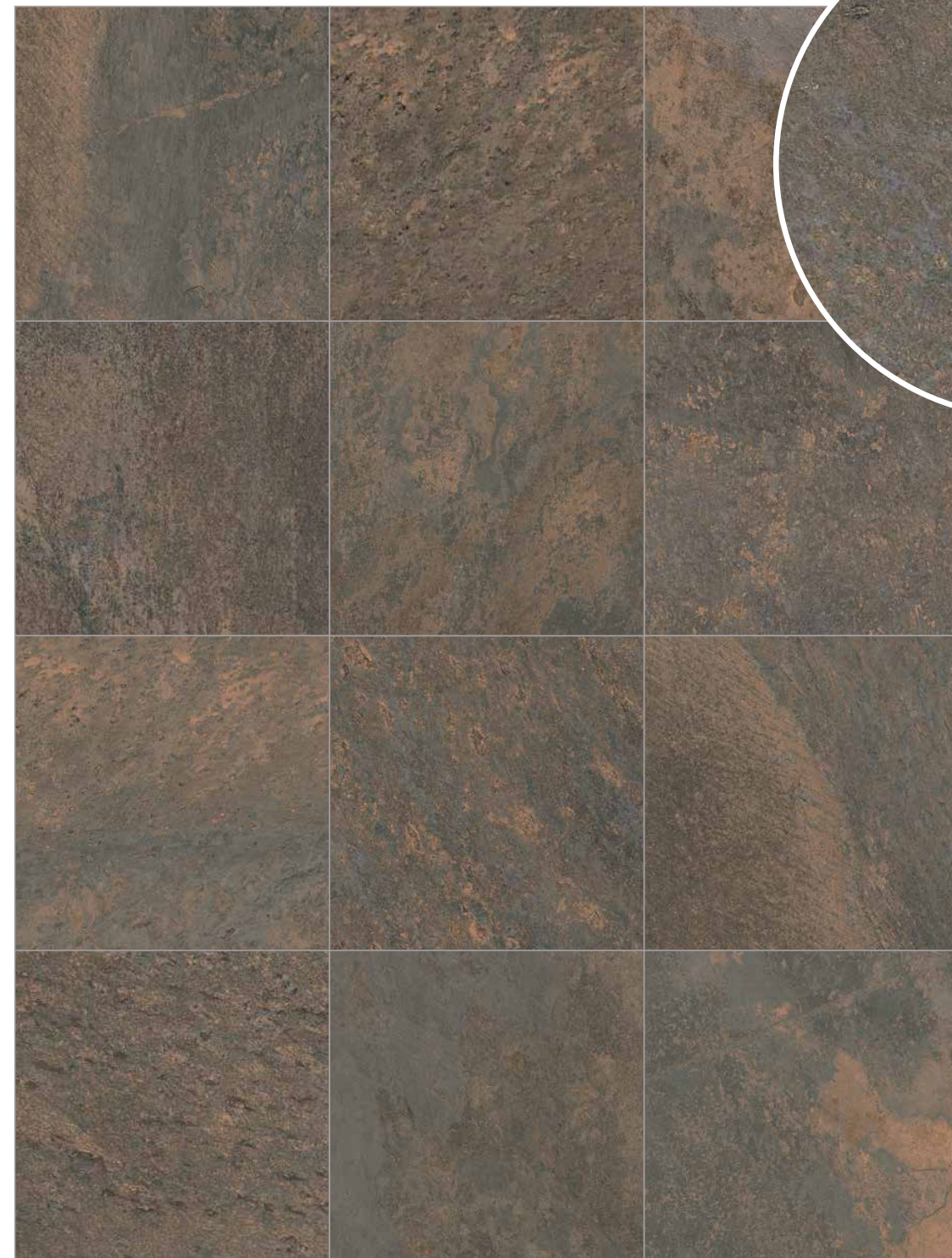


 3/4" thickness

 **V4**
substantial
variation

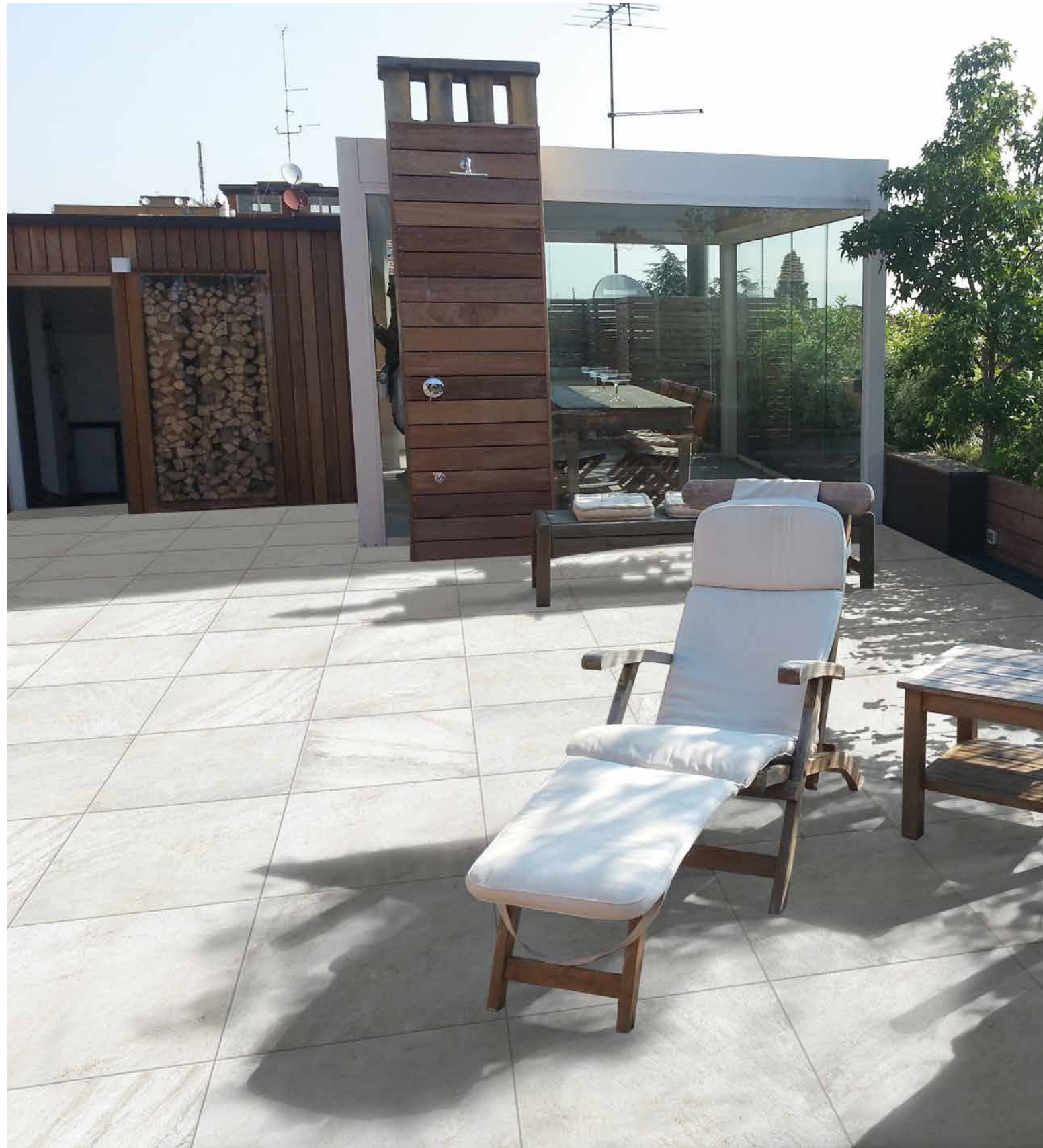


US6024
23 1/2" x 23 1/2" rectified
60x60 cm



An italian porcelain paver made in USA

QUARTZITE | *Crystal White*



3/4" thickness

V3 moderate variation



US7907
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100017
 11 3/4" x 23 1/2" rectified
 30x60 cm



QUARTZITE | *Sandy Island*



3/4" thickness

V3 moderate variation



US7910
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100018
 11 3/4" x 23 1/2" rectified
 30x60 cm



QUARTZITE | *Laguna*



3/4" thickness

V3 moderate variation



US7915
23 1/2" x 23 1/2" rectified
60x60 cm



QUARTZITE | *Cloud*



3/4" thickness

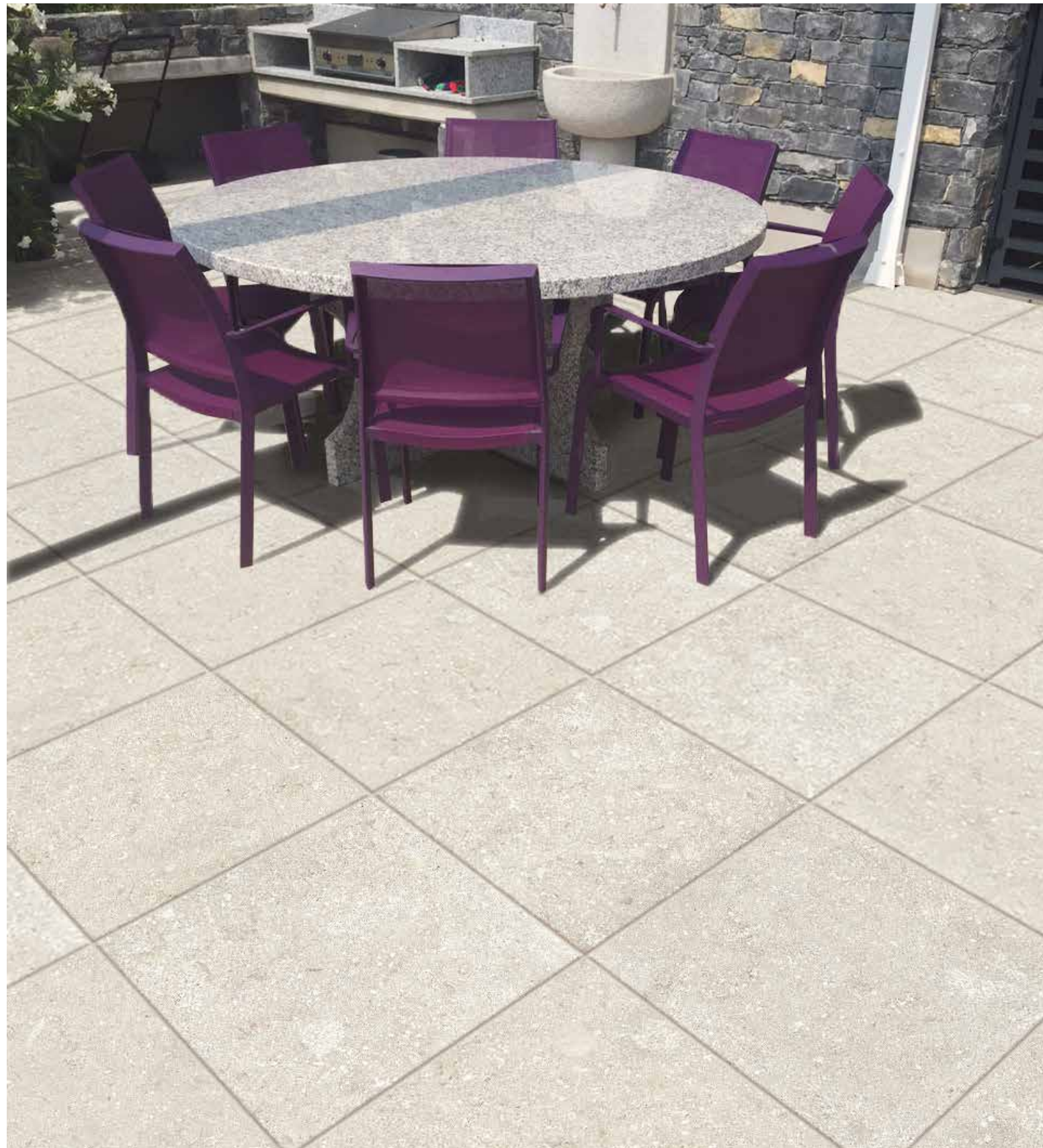
V3 moderate variation



US7914
 23 1/2" x 23 1/2" rectified
 60x60 cm



OCEAN STONE | *White Cool*



3/4" thickness

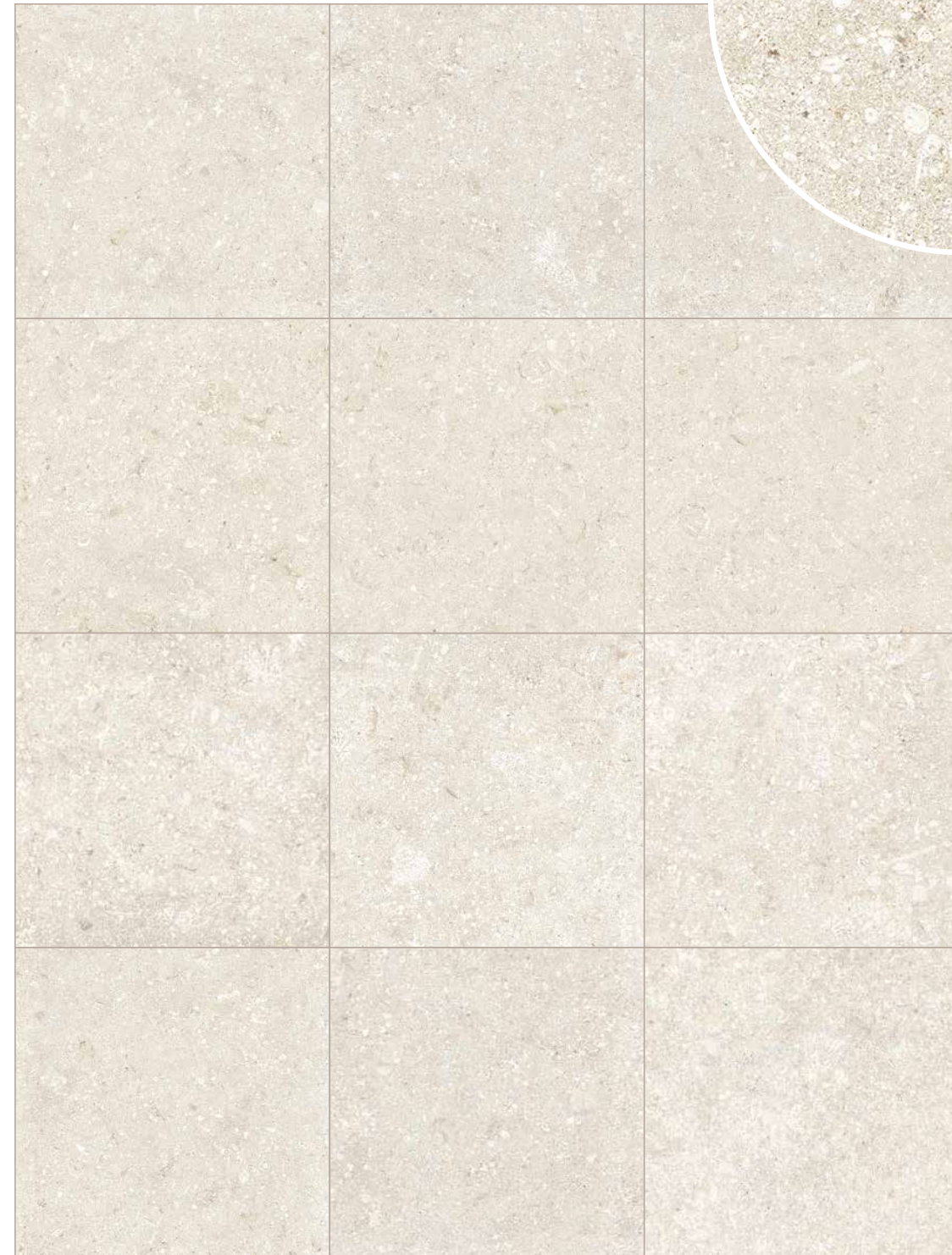
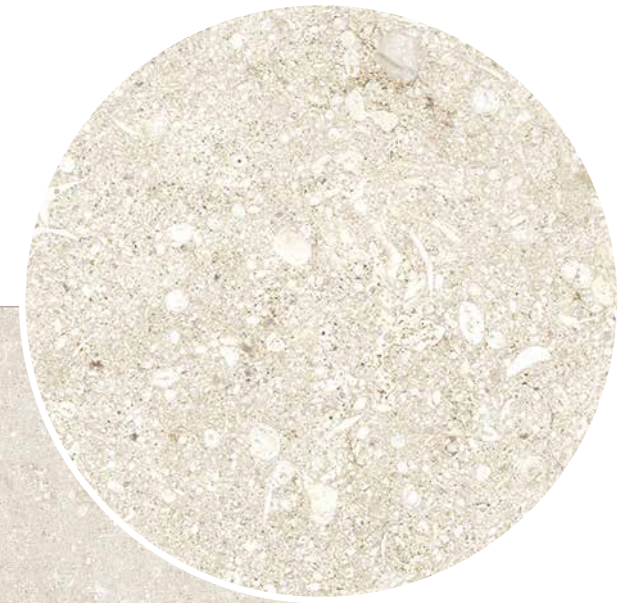
V2 slight variation



US7911
 23 1/8" x 23 1/8" rectified
 60x60 cm



1100019
 11 3/4" x 23 1/8" rectified
 30x60 cm



OCEAN STONE | *Black*



3/4" thickness

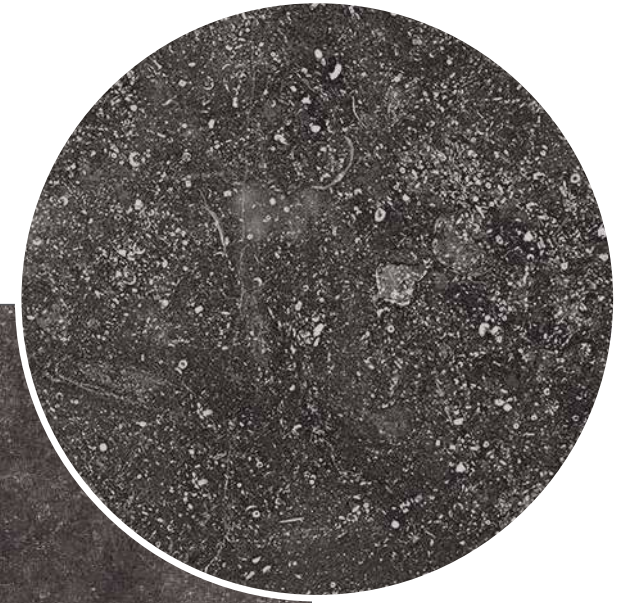
v2
slight
variation



US7912
 23 1/4" x 23 1/2" rectified
 60x60 cm



1100021
 11 3/4" x 23 1/2" rectified
 30x60 cm



OCEAN STONE | *Tan*



3/4" thickness

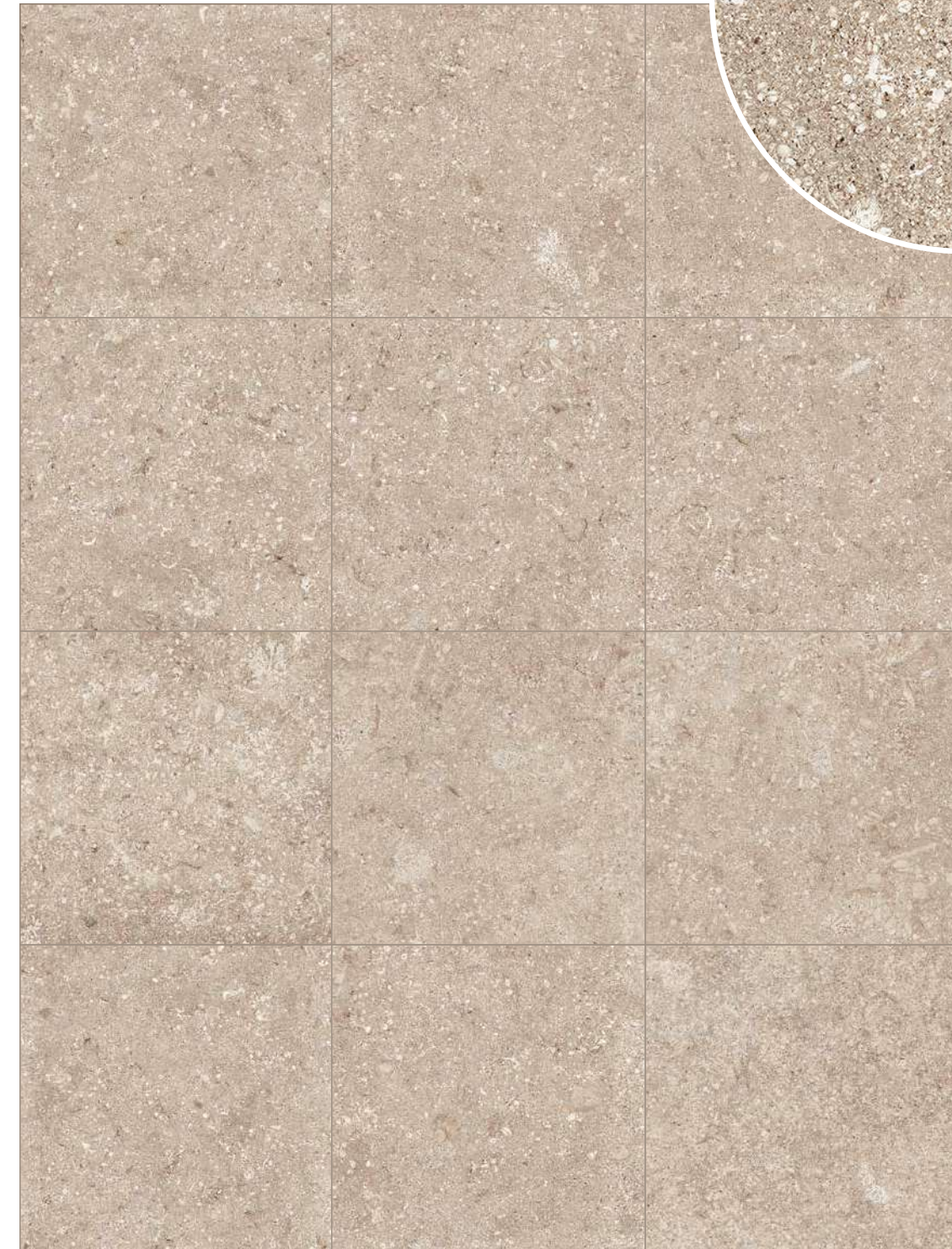
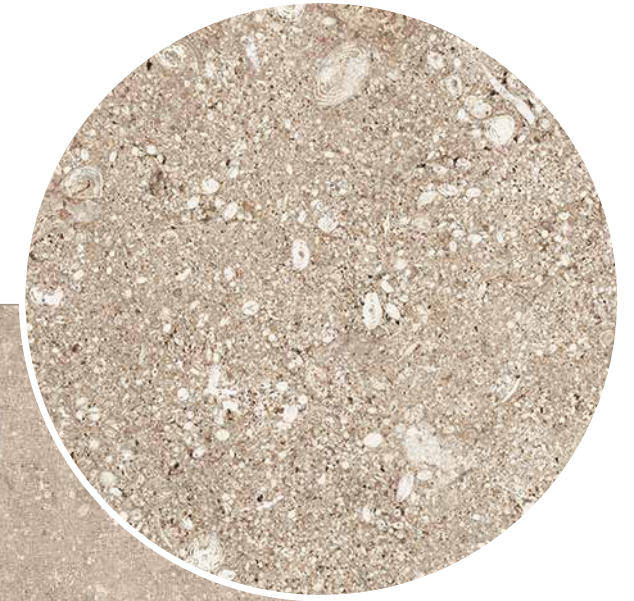
v2
slight
variation



US7913
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100020
 11 3/4" x 23 1/2" rectified
 30x60 cm



COTTO

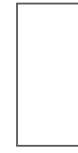


3/4" thickness

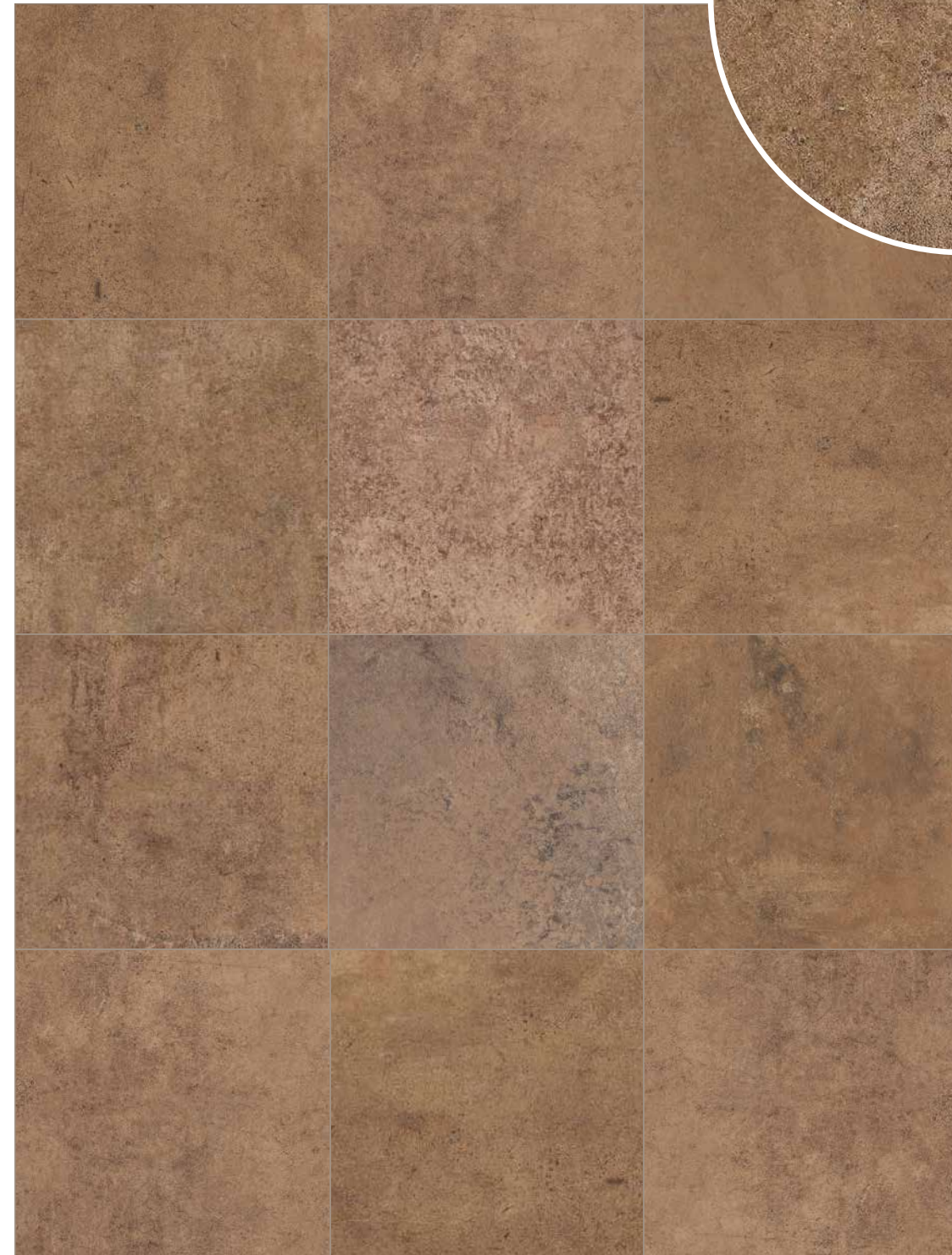
V3 moderate variation



US7924
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100022
 11 3/4" x 23 1/2" rectified
 30x60 cm

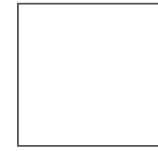


MONOCROMATICA | *Bone*



3/4" thickness

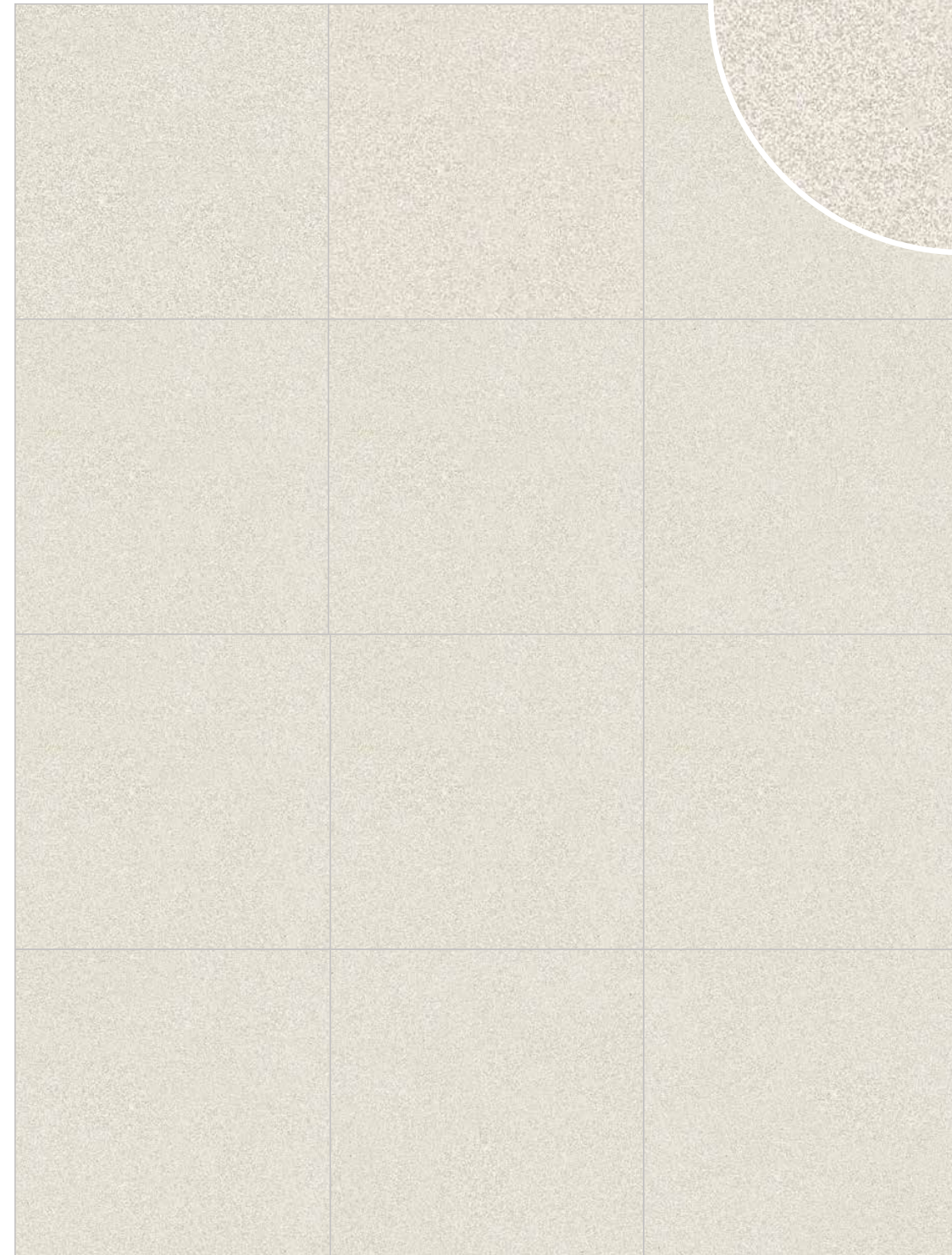
V1
uniform
appearance



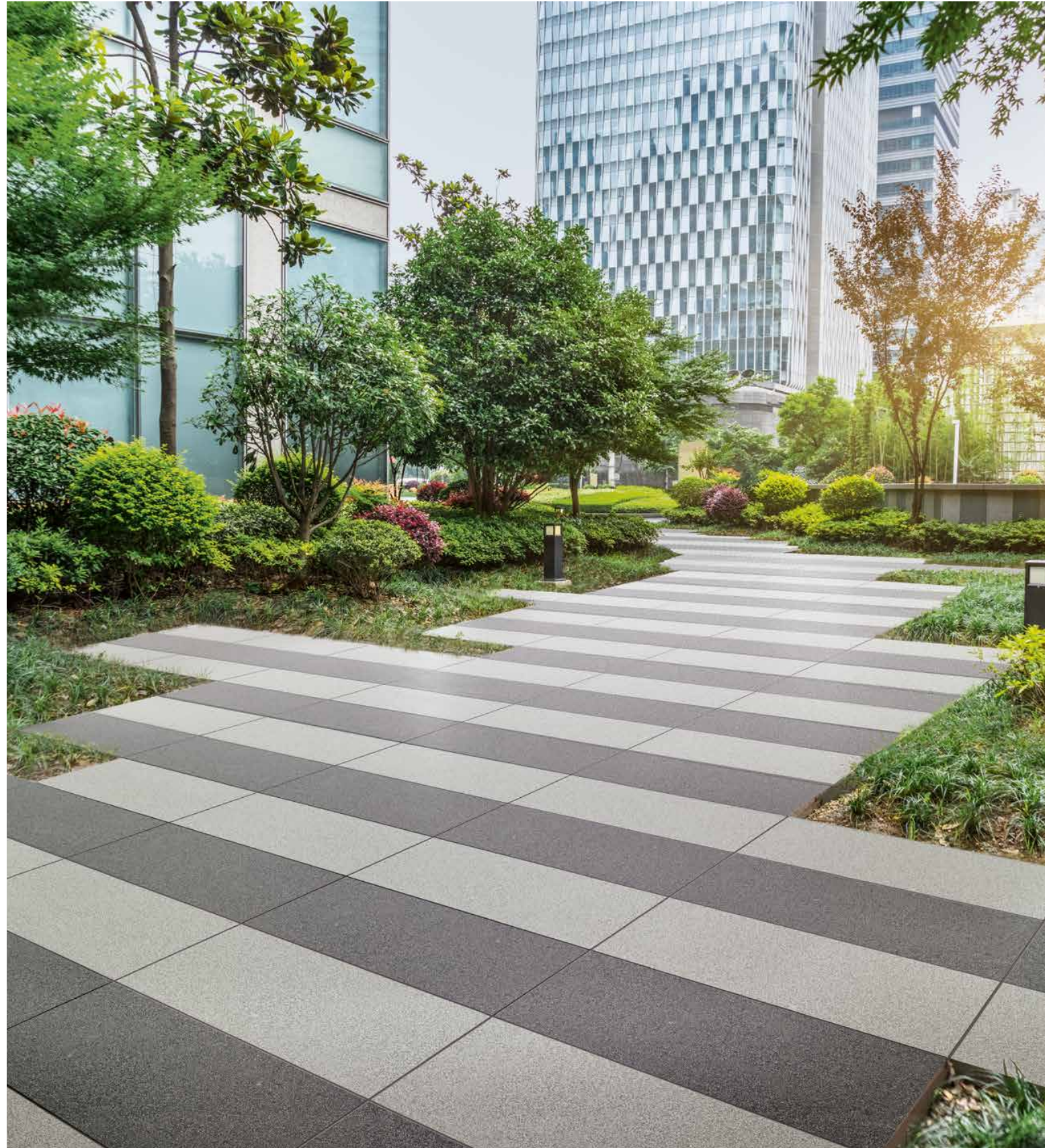
US7938
23 1/8" x 23 1/8" rectified
60x60 cm



1100032
11 3/4" x 23 1/8" rectified
30x60 cm



MONOCROMATICA | Ash



3/4" thickness

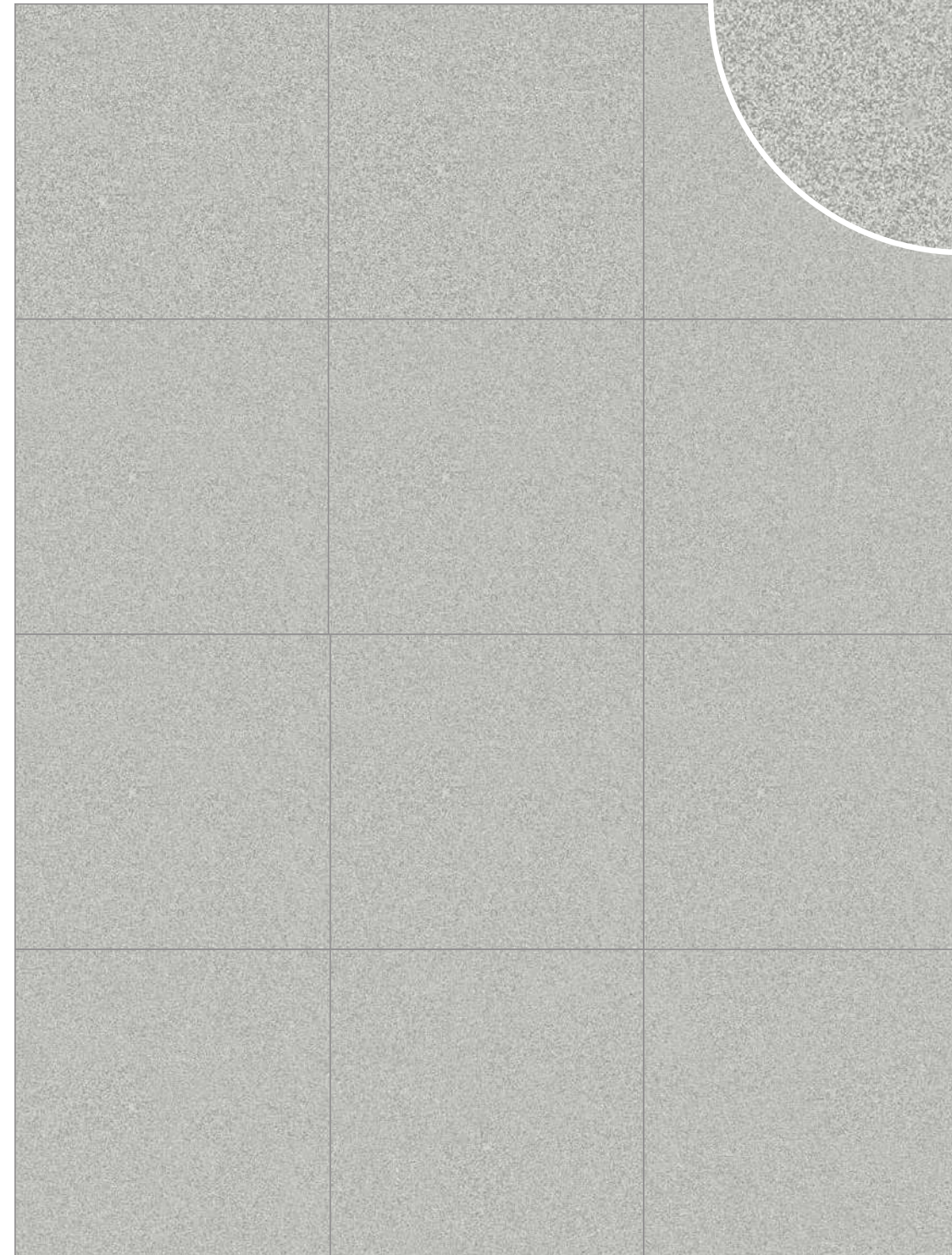
V1
uniform
appearance



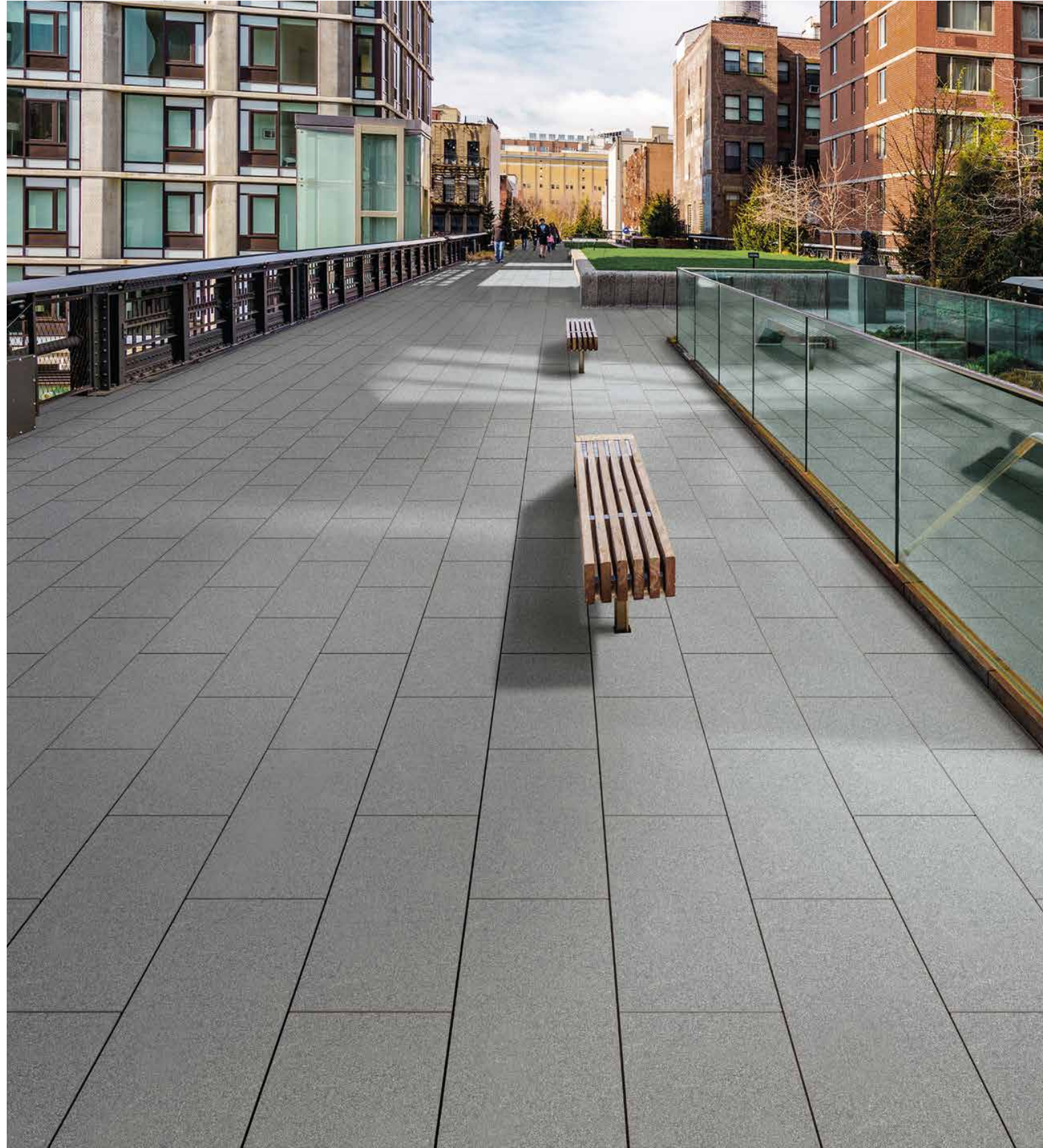
US7937
 23 1/8" x 23 1/8" rectified
 60x60 cm



1100031
 11 3/4" x 23 1/8" rectified
 30x60 cm



MONOCROMATICA | *Basalt*



3/4" thickness

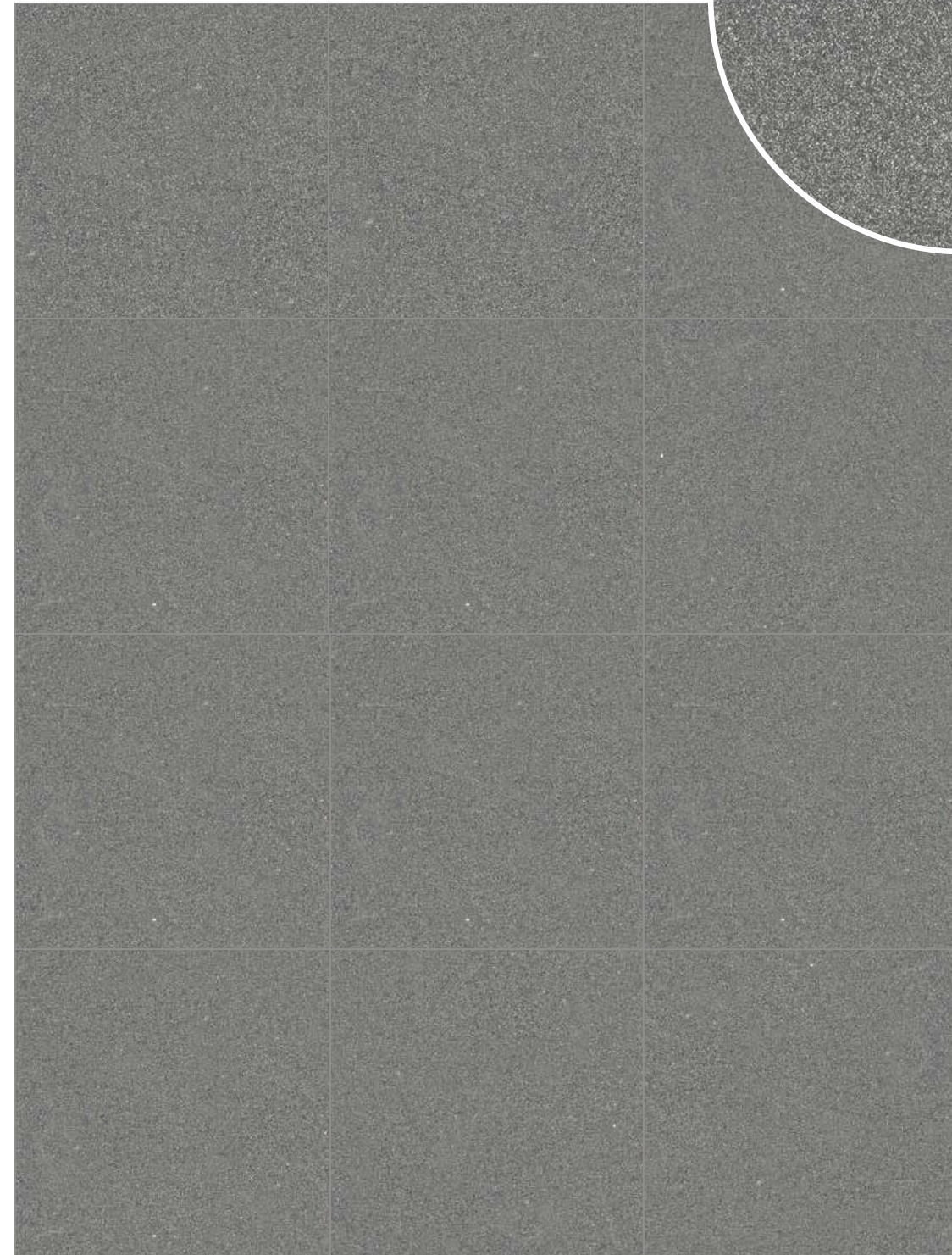
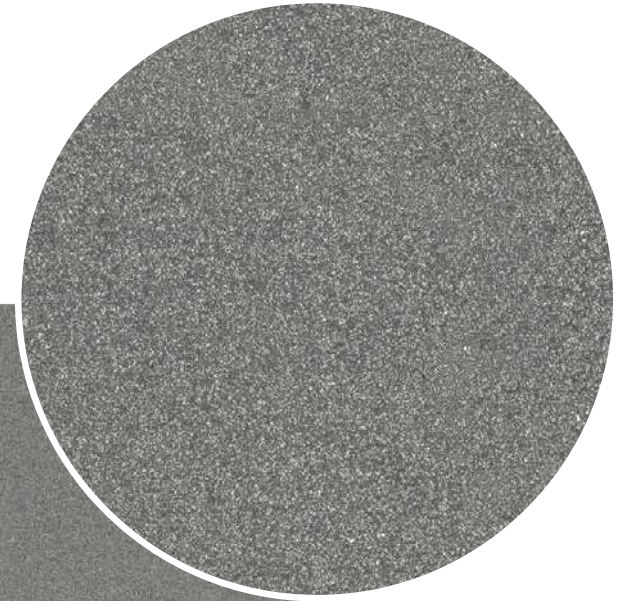
V1 uniform appearance



US7936
 23 1/8" x 23 1/8" rectified
 60x60 cm



1100030
 11 3/4" x 23 1/8" rectified
 30x60 cm



MONOCROMATICA | Sand



3/4" thickness

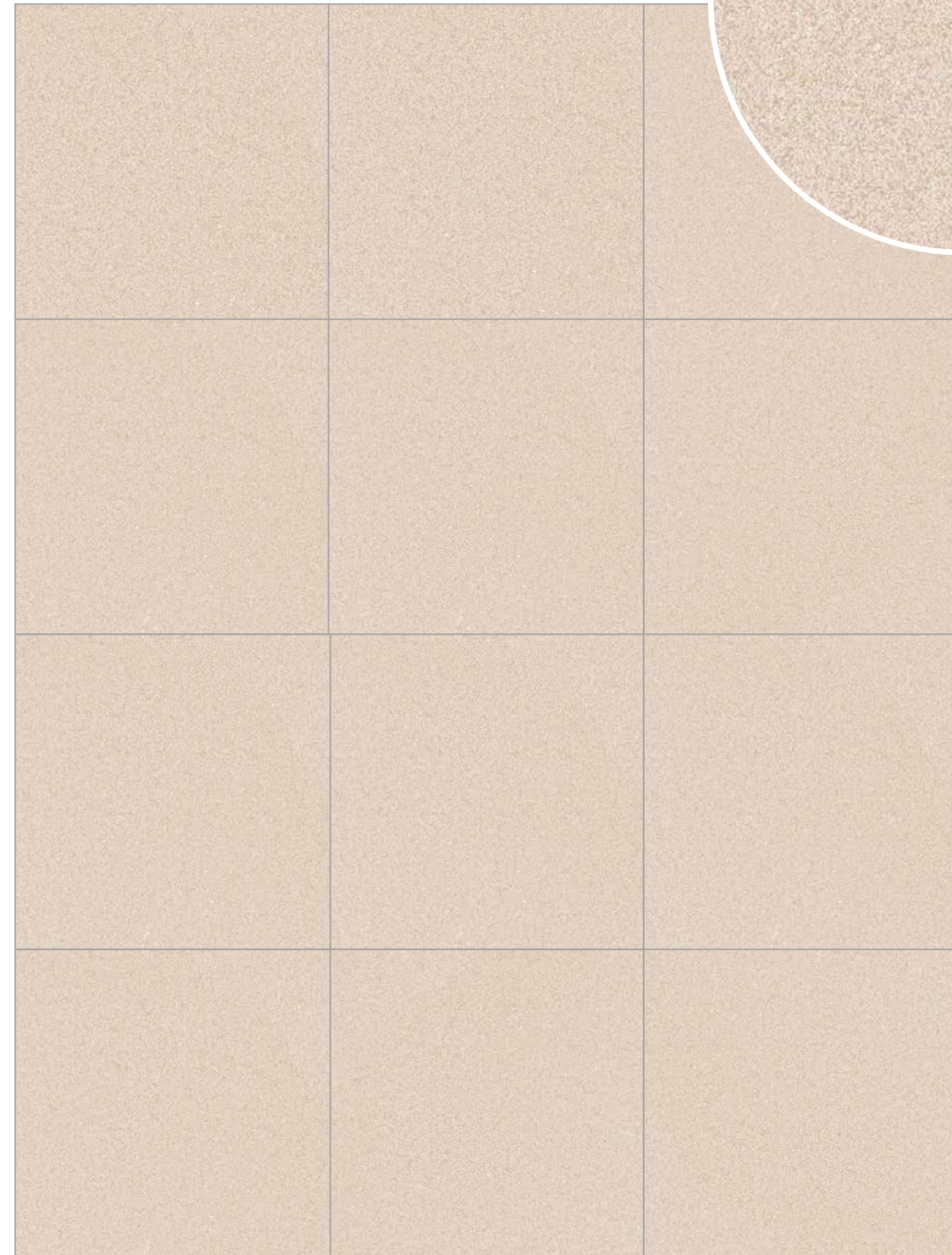
V1 uniform appearance



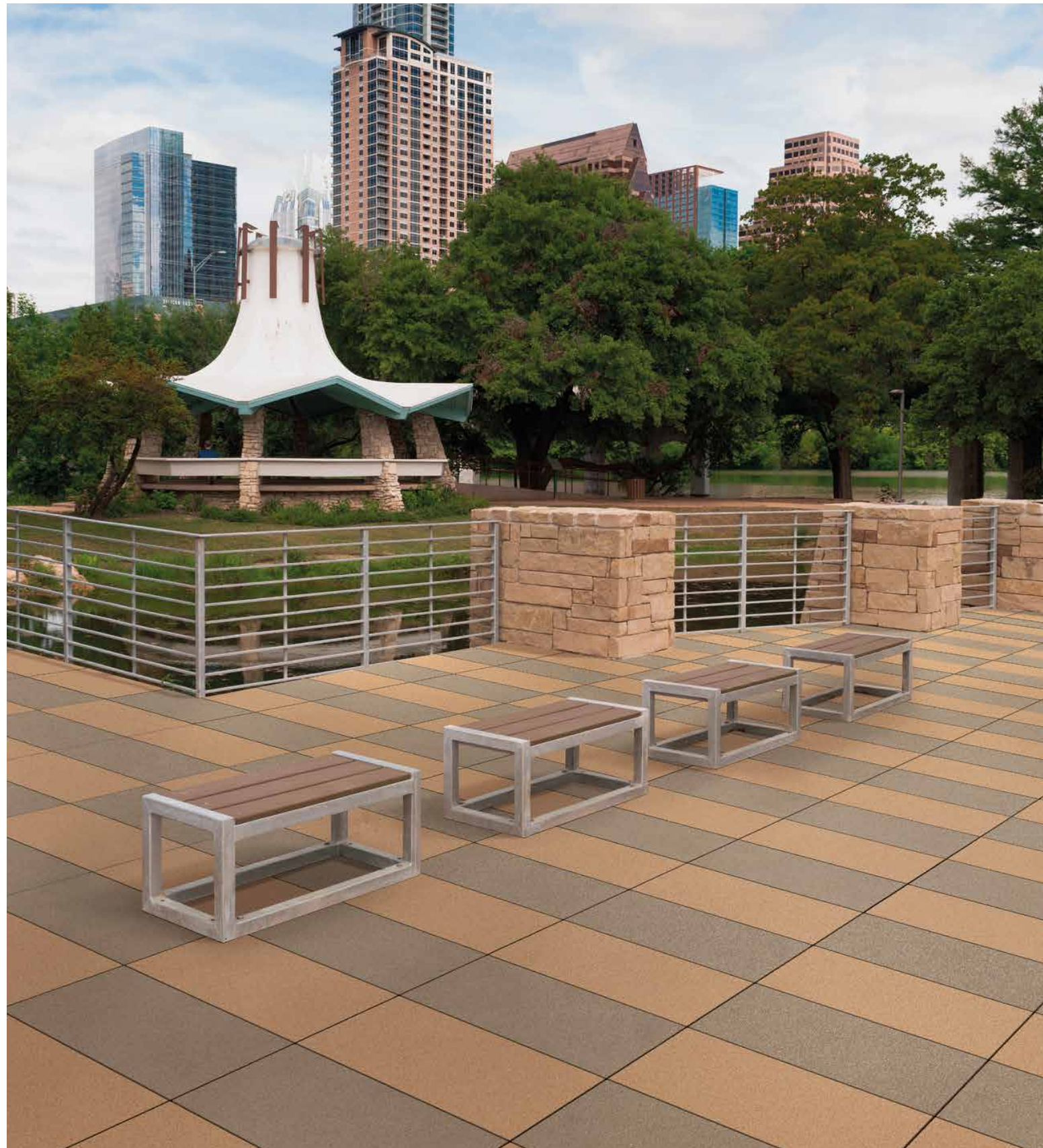
US7935
 23 1/8" x 23 1/8" rectified
 60x60 cm



1100029
 11 3/4" x 23 1/8" rectified
 30x60 cm

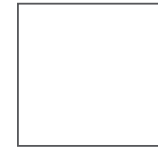


MONOCROMATICA | Cognac



3/4" thickness

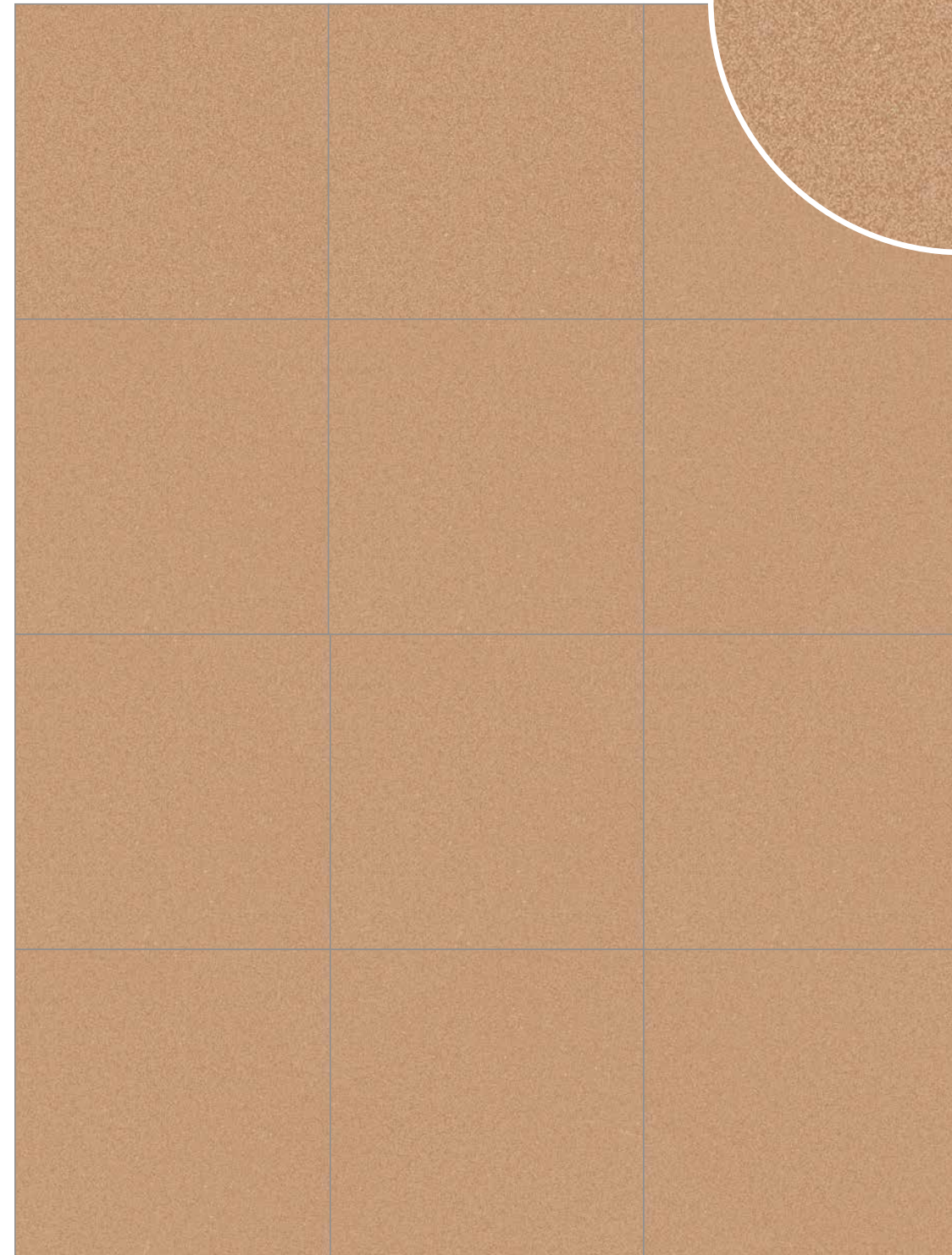
V1
uniform
appearance



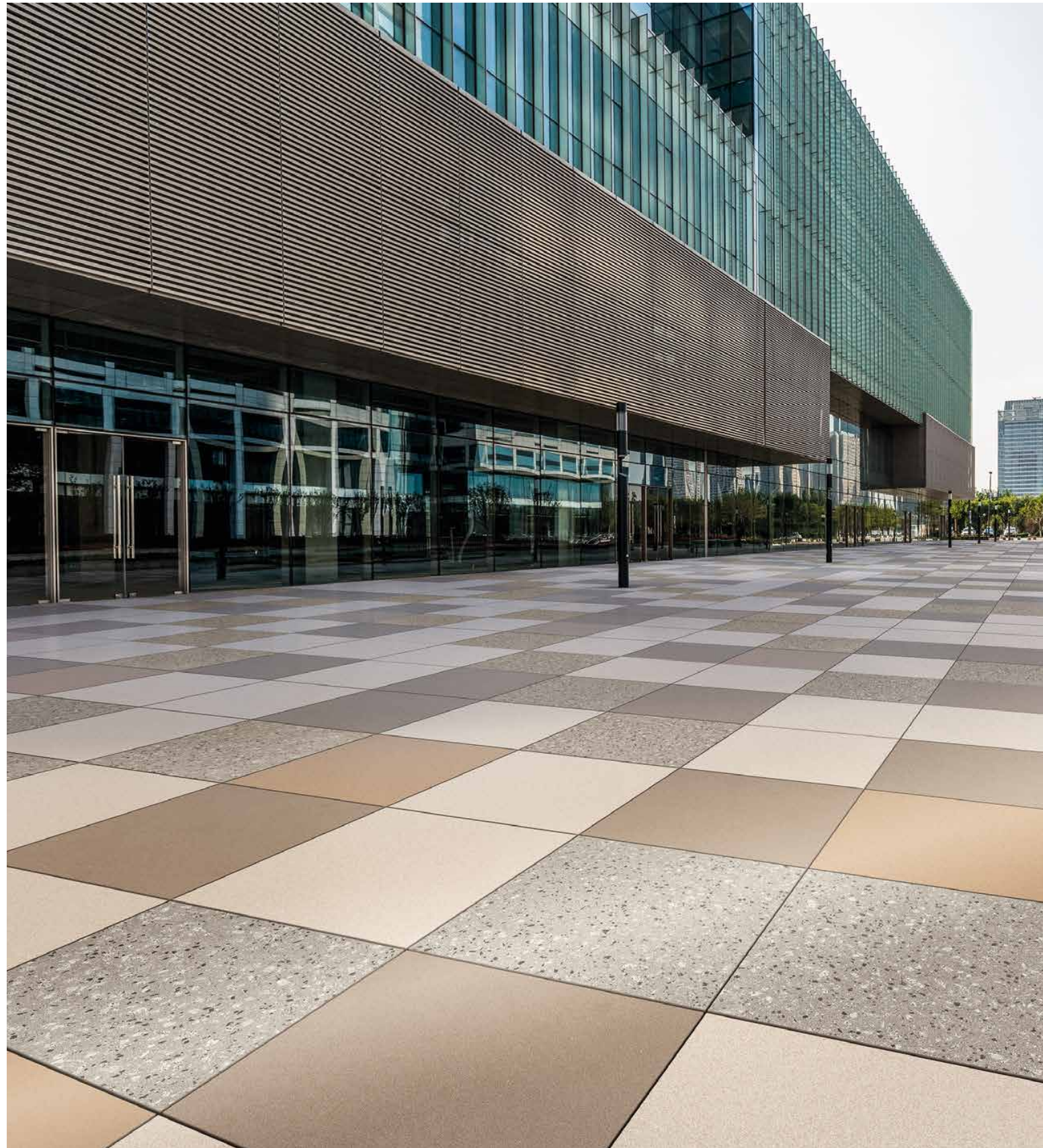
US7934
 23 1/8" x 23 1/8" rectified
 60x60 cm



1100028
 11 3/4" x 23 1/8" rectified
 30x60 cm



MONOCROMATICA | *Leather*



3/4" thickness

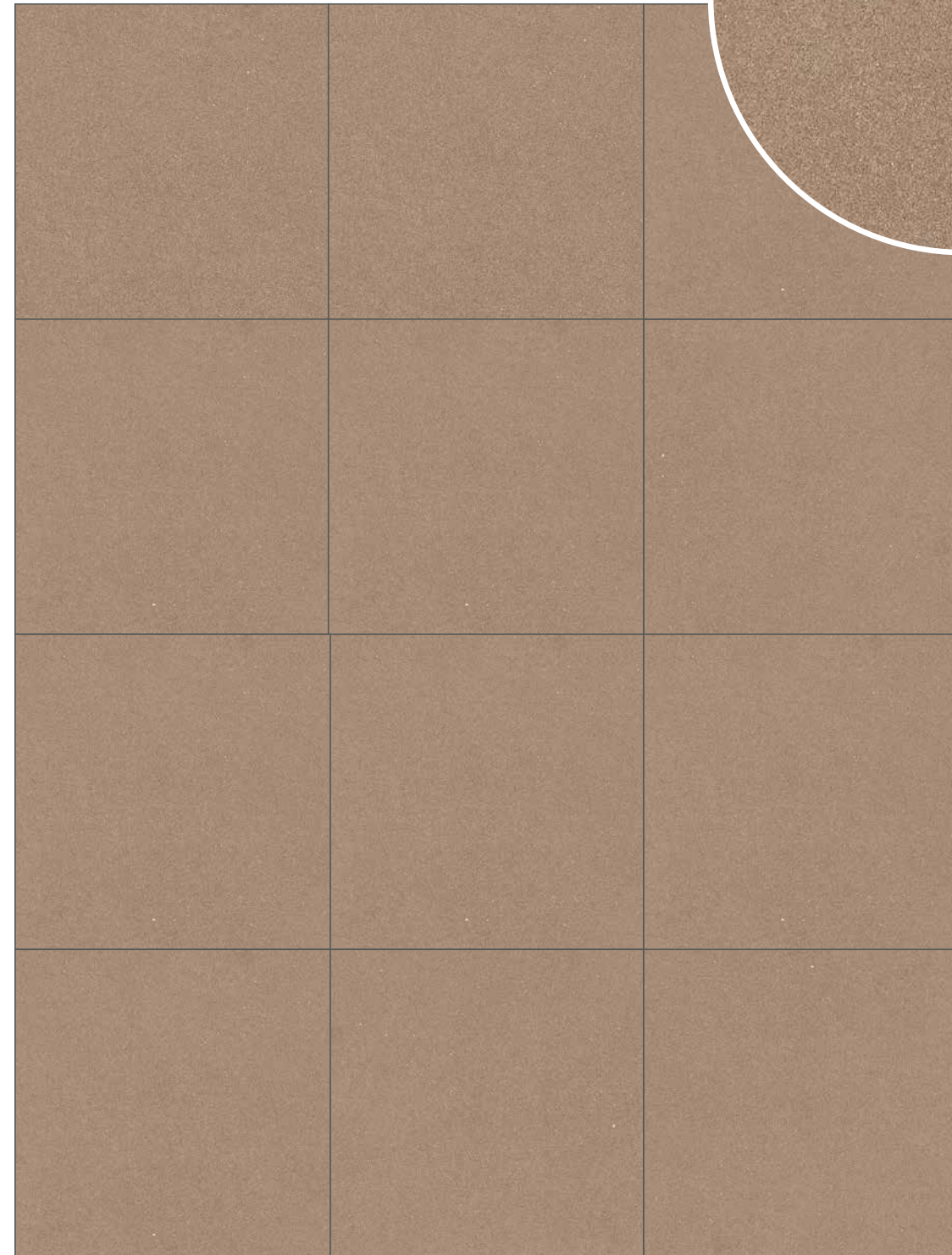
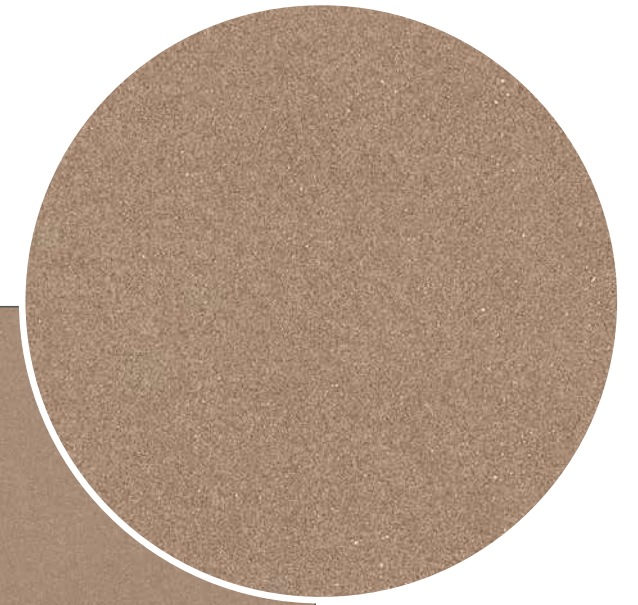
V1
uniform
appearance



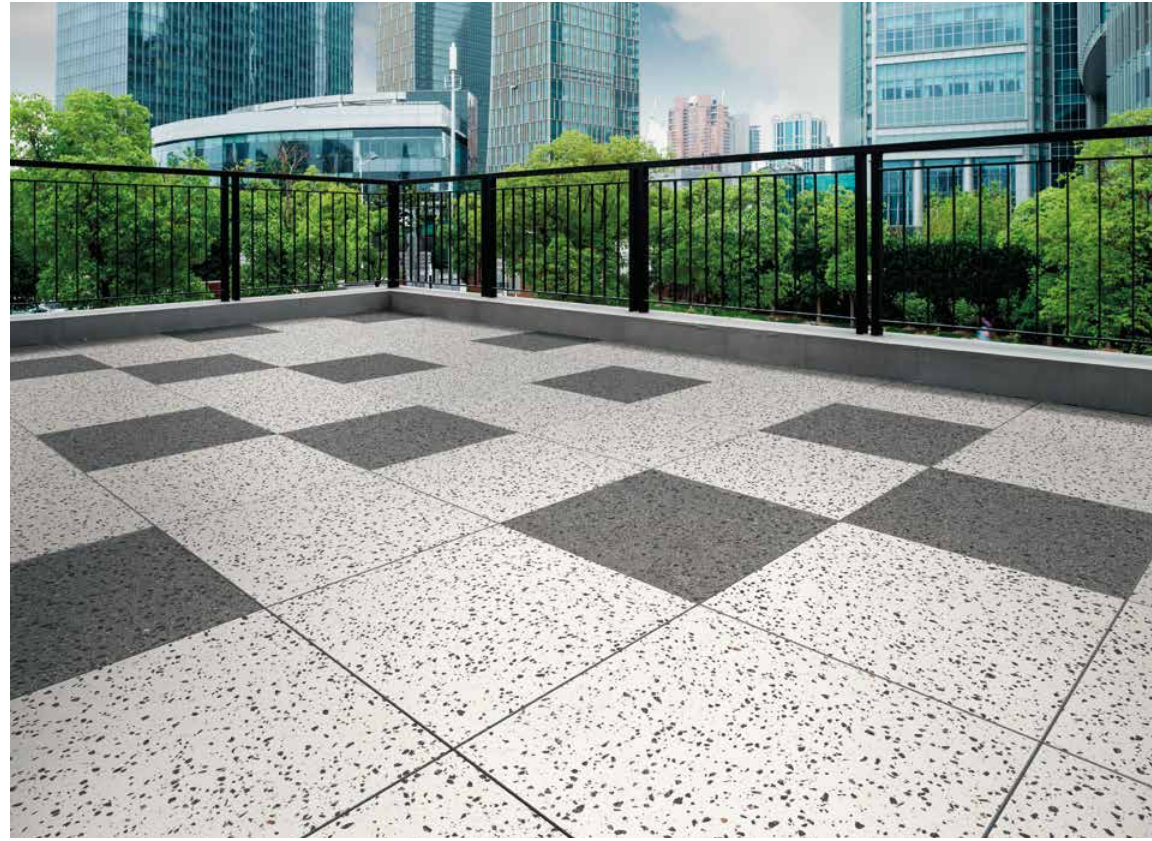
US7939
 23 1/8" x 23 1/8" rectified
 60x60 cm



1100033
 11 3/4" x 23 1/8" rectified
 30x60 cm



TERRAZZO | White Black



3/4" thickness

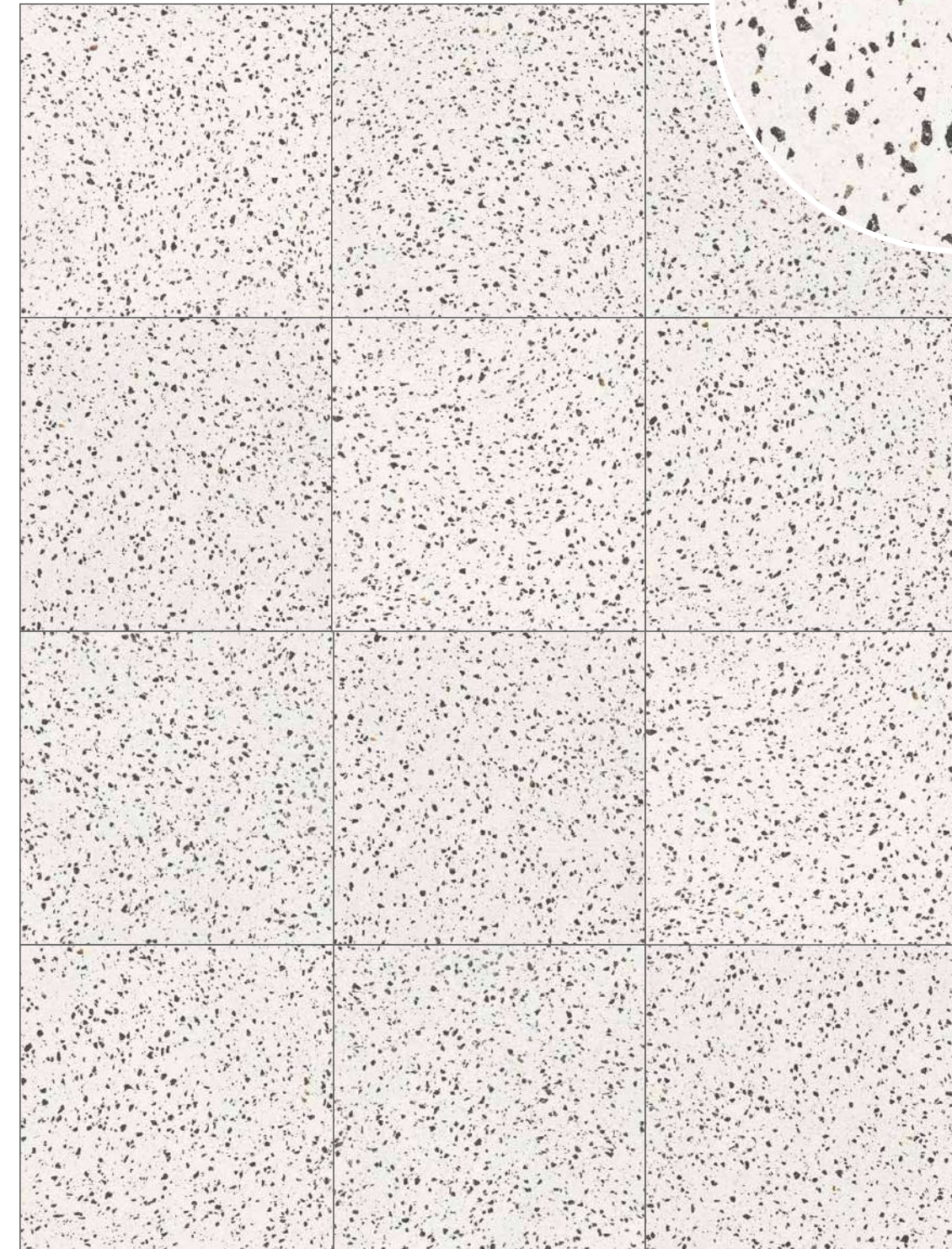
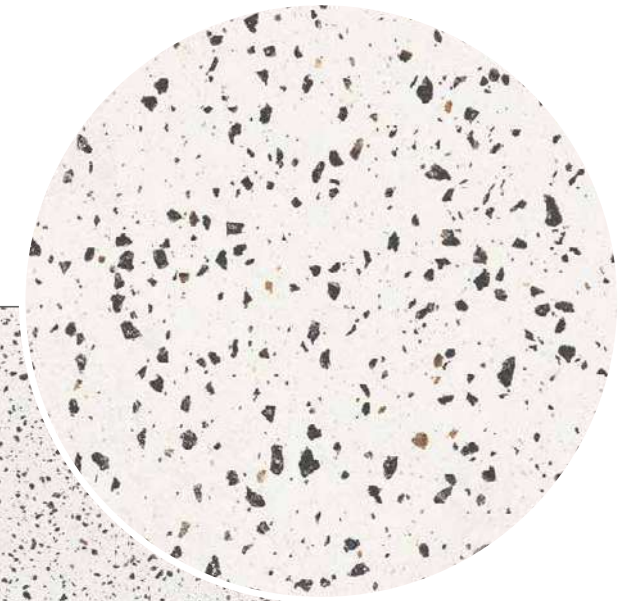
v2
slight
variation



US7933
23 1/2" x 23 1/2" rectified
60x60 cm



1100027
11 3/4" x 23 1/2" rectified
30x60 cm



TERRAZZO | Grey Black



3/4" thickness

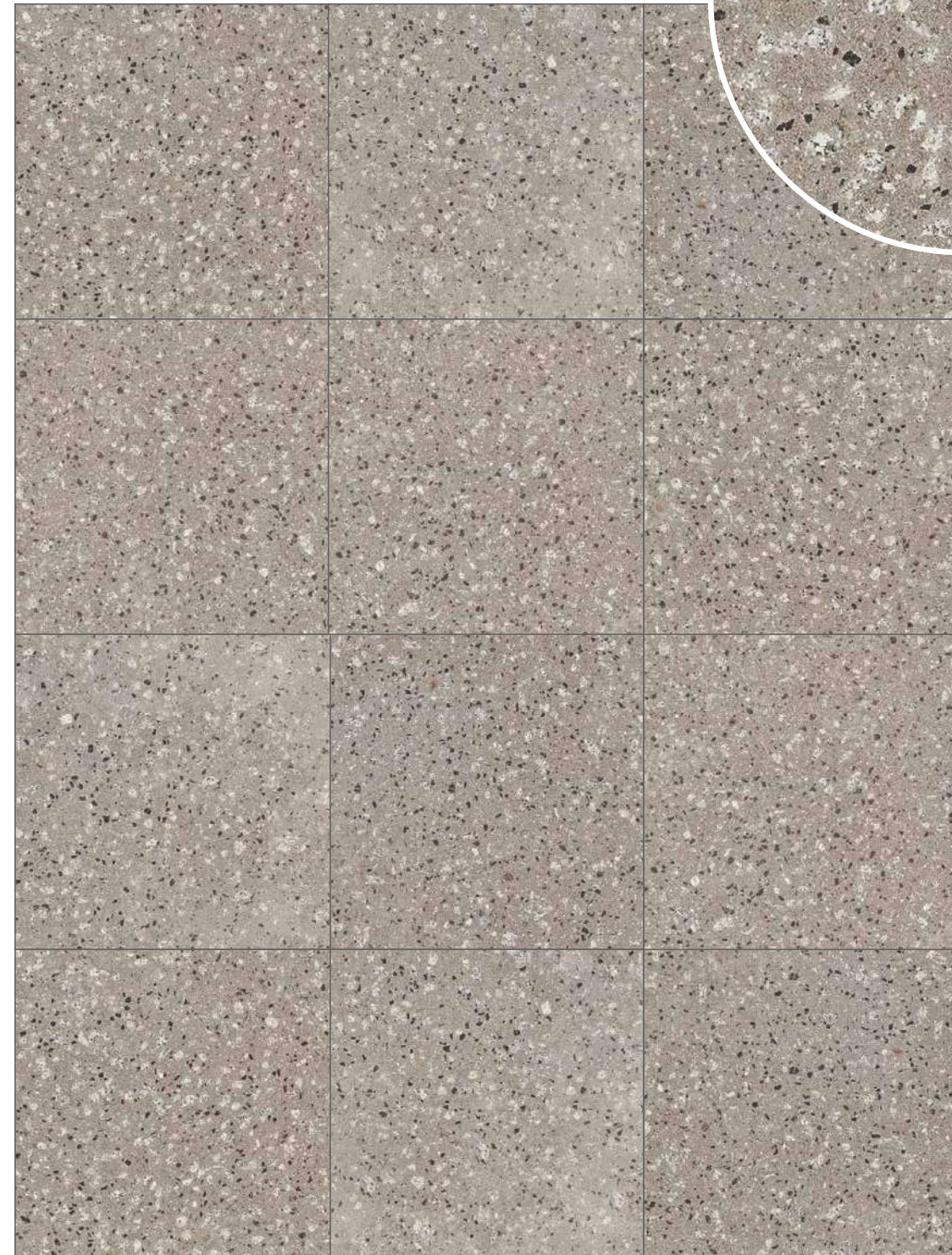
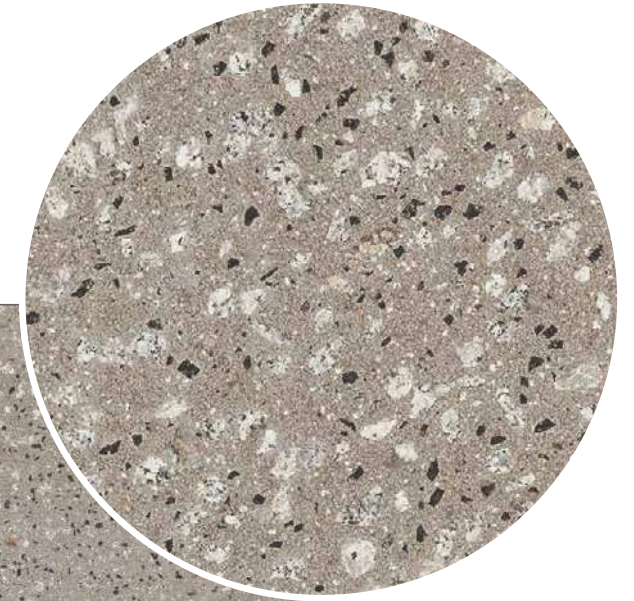
v2
slight
variation



US7932
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100026
 11 1/4" x 23 1/2" rectified
 30x60 cm



TERRAZZO | Charcoal



3/4" thickness

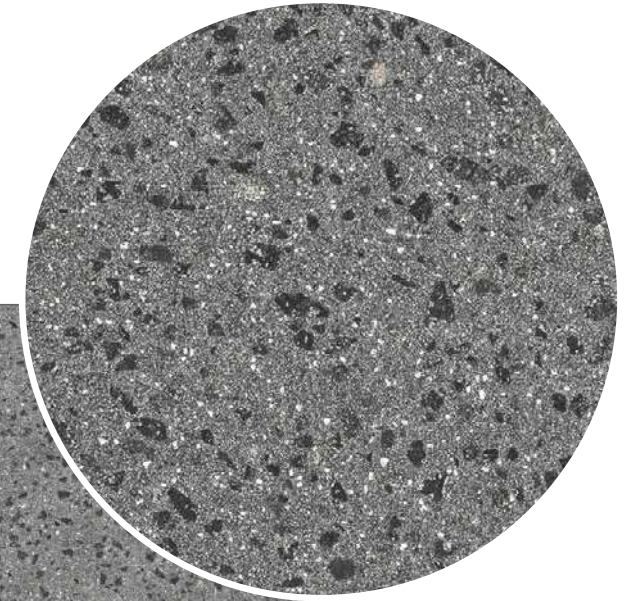
v2
slight
variation



US7931
 23 1/2" x 23 1/2" rectified
 60x60 cm



1100025
 11 3/4" x 23 1/2" rectified
 30x60 cm



TERRAZZO | Cool White



3/4" thickness

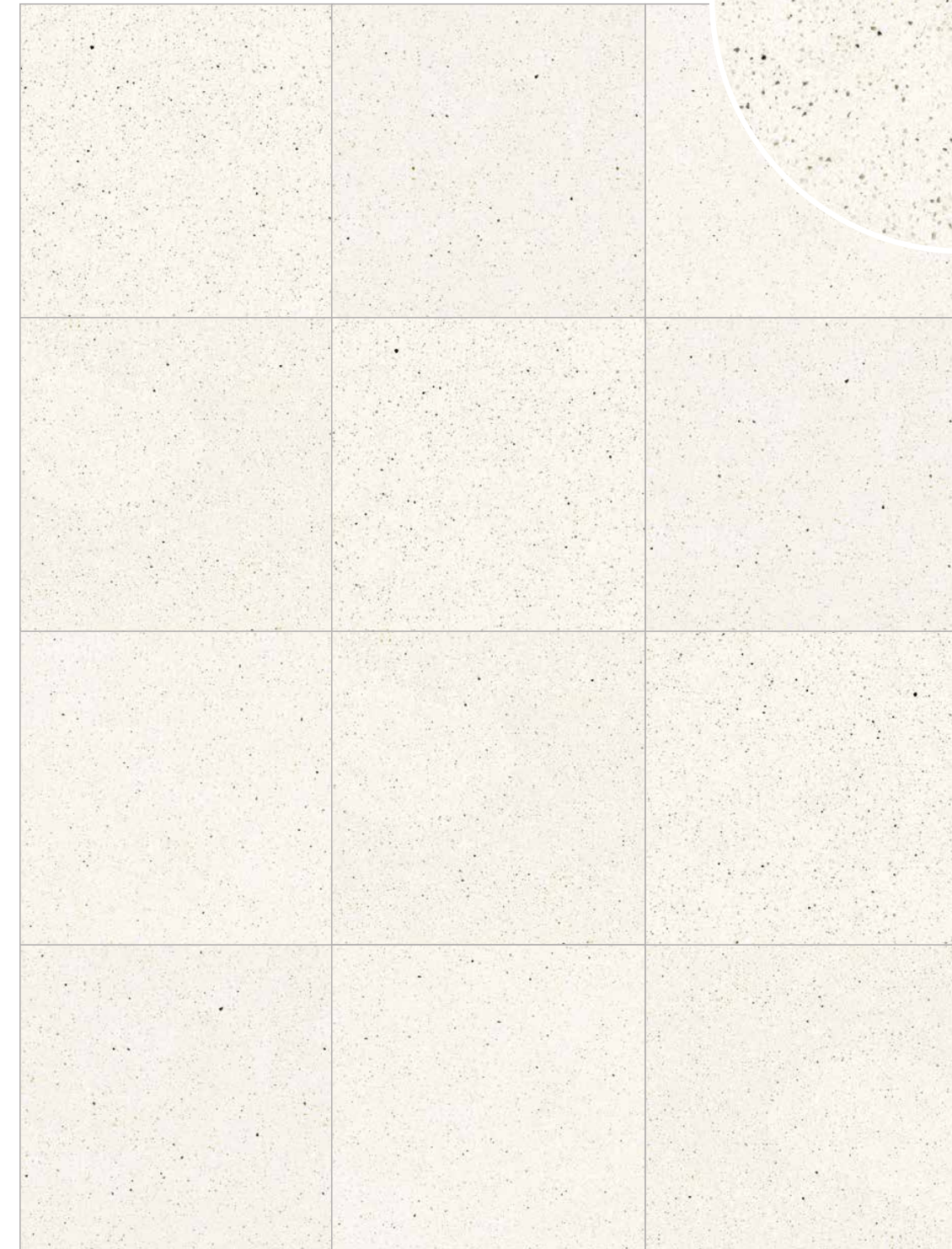
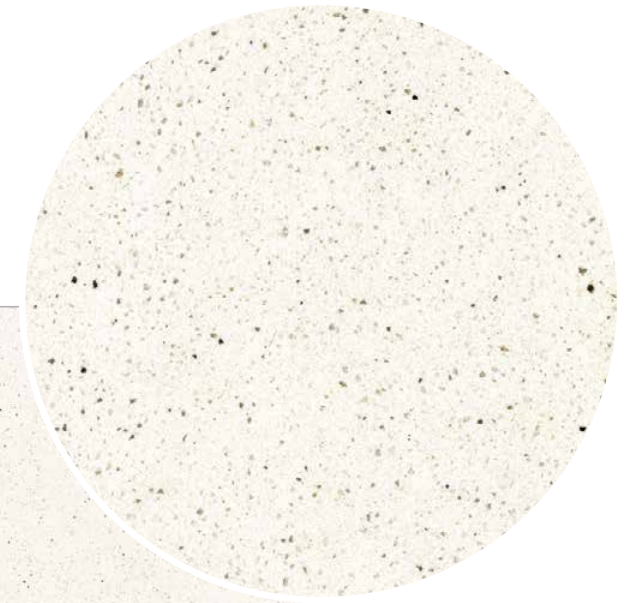
V2
slight
variation



US7929
 23 1/8" x 23 1/8" rectified
 60x60 cm



1100023
 11 3/4" x 23 1/8" rectified
 30x60 cm



TERRAZZO | Cool Grey



3/4" thickness

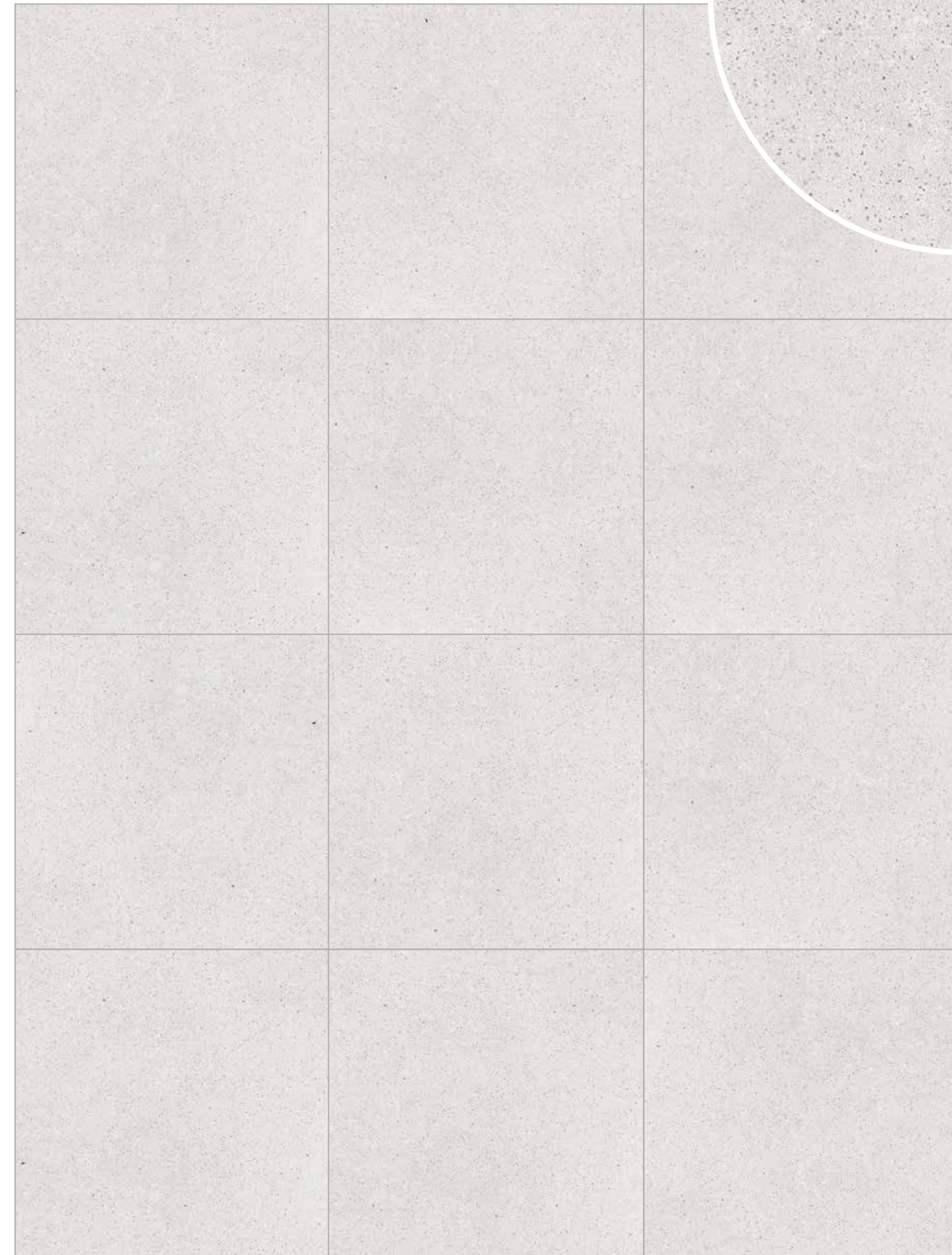
V2 slight variation



US7930
 23 1/8" x 23 1/8" rectified
 60x60 cm




1100024
 11 3/4" x 23 1/8" rectified
 30x60 cm



TEX WOOD | Grey

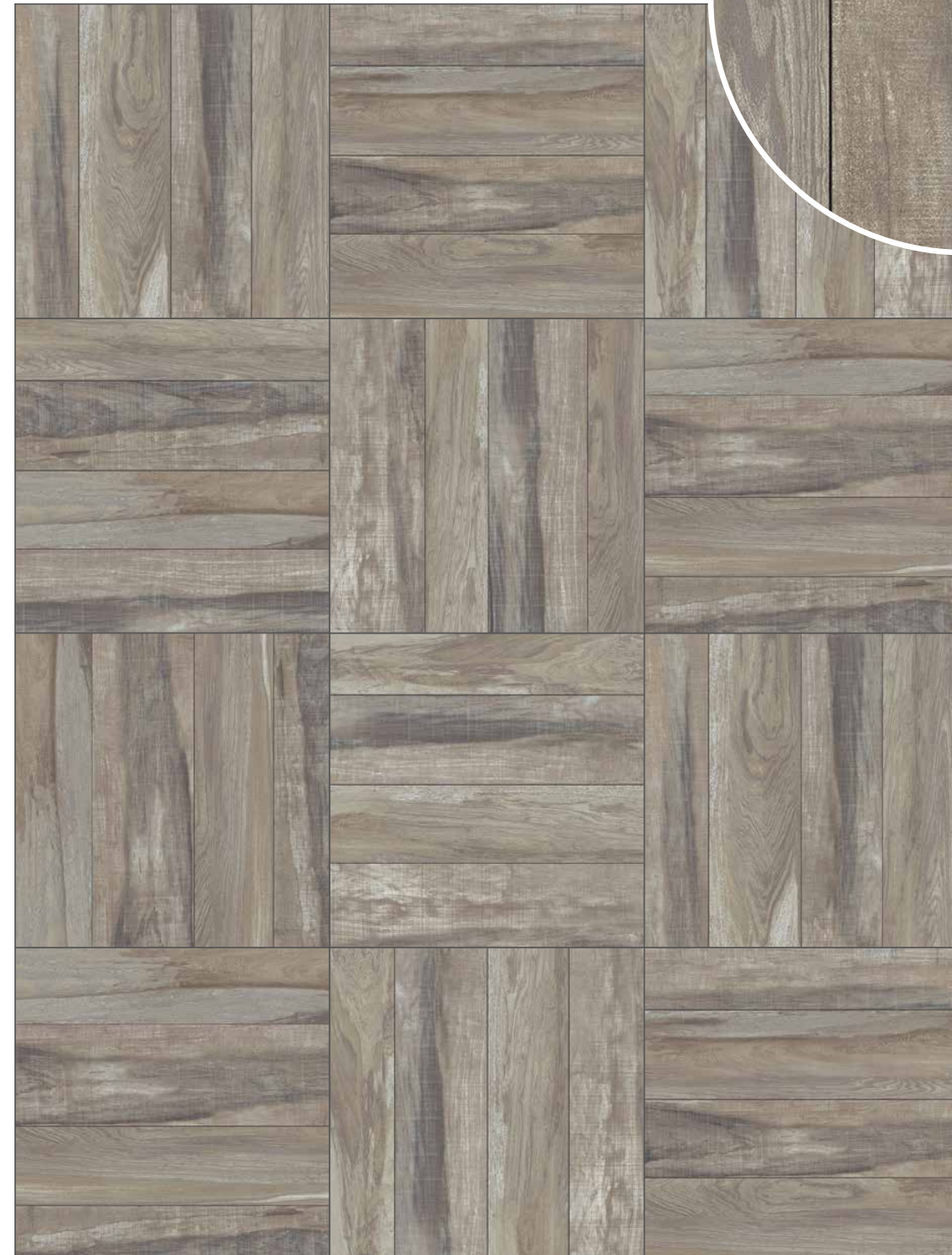


 3/4" thickness

 **V3**
moderate
variation



US7900
23 1/2" x 23 1/2" rectified
60x60 cm



TEX WOOD | *Brown*



3/4" thickness

V3 moderate variation




US7901
 23 1/2" x 23 1/2" rectified
 60x60 cm



TEX WOOD | Ivory



 3/4" thickness

 **V3**
moderate
variation




US7902
23 1/2" x 23 1/2" rectified
60x60 cm



TIMBER WOOD | Teak



 3/4" thickness

 V3 moderate variation



US7905
23 1/2" x 23 1/2" rectified
60x60 cm



TIMBER WOOD | Ipe'



3/4" thickness

V3 moderate variation



US7906
 23 1/2" x 23 1/2" rectified
 60x60 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 meet 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) POPA 2.0 and "TEX/TIMBER surfaces" 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 (POPA 2.0). 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 POPA2.0 on elevated installation

The Monolithic product POPA 2.0 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 POPA 2.0 RESPONDS IMPROVEMENT on all comparative tests, e.g. resists more than 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 POPA 2.0 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:



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 Kronos 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.

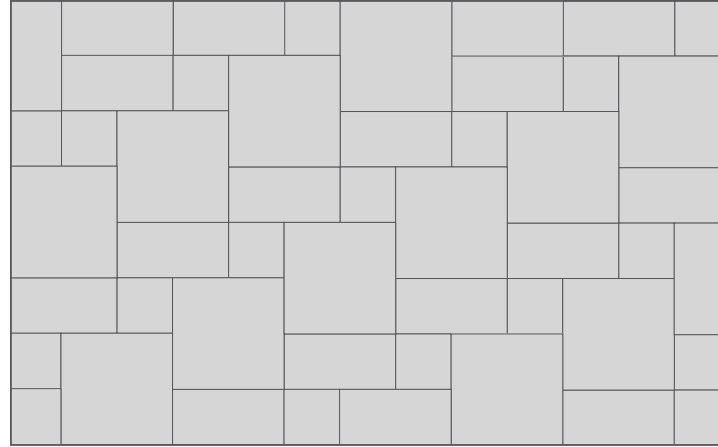
The Saffir-Simpson Hurricane Wind Scale defines wind speeds over 74 mph to be hurricane velocity, where for example it is stated that a Category 1 (74-95mph) storm means: 'Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding and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

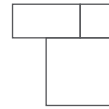
This report is intended to provide additional information about wind uplift where ¾" single slab porcelain pavers as supplied by Kronos are installed on fixed or adjustable height pedestals. It should not be construed as a guarantee or warranty of any kind, including but not limited to warranties of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

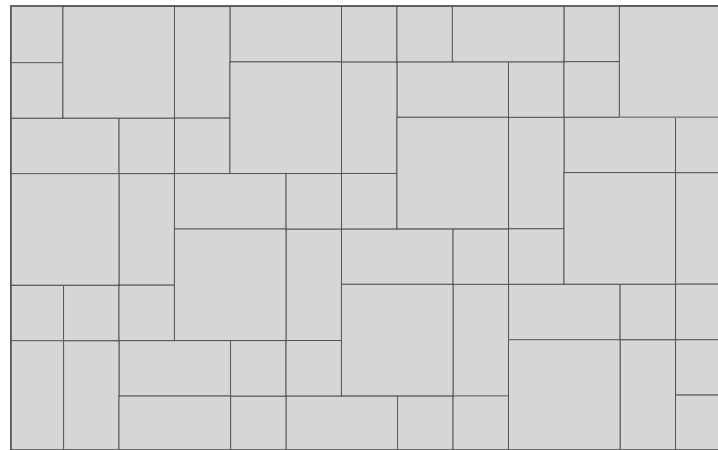
PATTERNS |



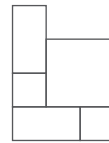
pattern A



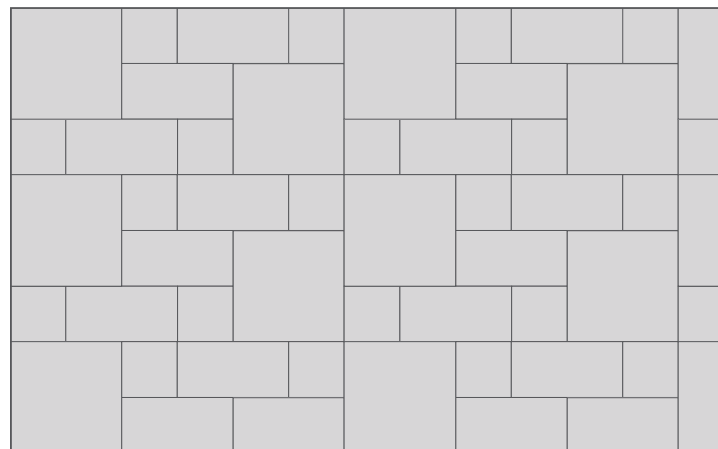
Nr. 1 pcs	23½" x 23½" - 60x60 cm	57,2%
Nr. 1 pcs	11¾" x 23½" - 30x60 cm	28,5%
Nr. 1 pcs	11¾" x 11¾" - 30x30 cm	14,3%



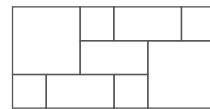
pattern B



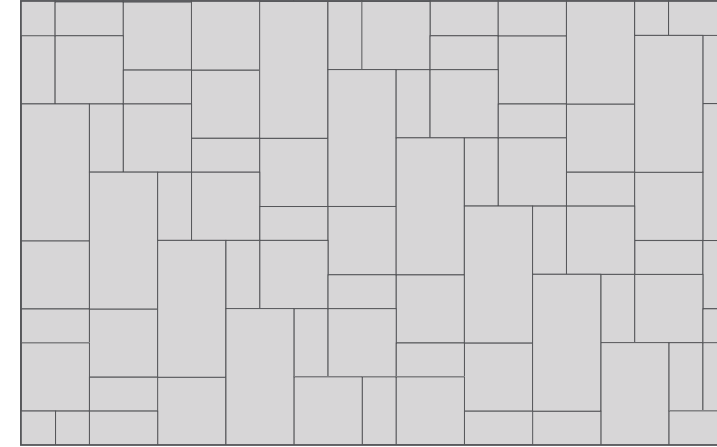
Nr. 1 pcs	23½" x 23½" - 60x60 cm	40%
Nr. 2 pcs	11¾" x 23½" - 30x60 cm	40%
Nr. 2 pcs	11¾" x 11¾" - 30x30 cm	20%



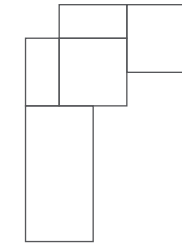
pattern C



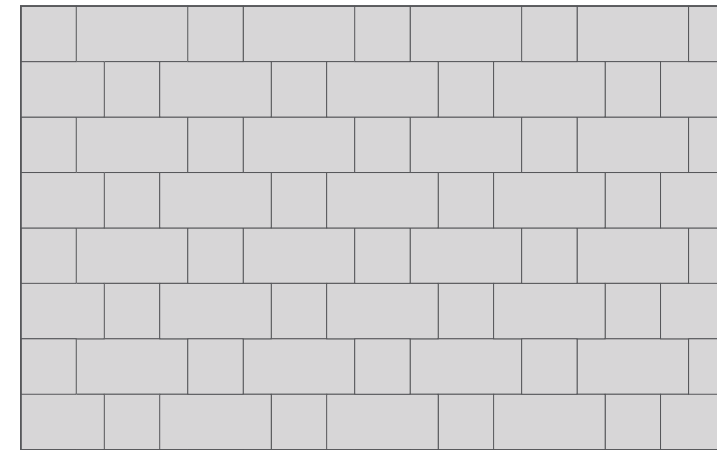
Nr. 2 pcs	23½" x 23½" - 60x60 cm	44,5%
Nr. 3 pcs	11¾" x 23½" - 30x60 cm	33,3%
Nr. 4 pcs	11¾" x 11¾" - 30x30 cm	22,2%



pattern D



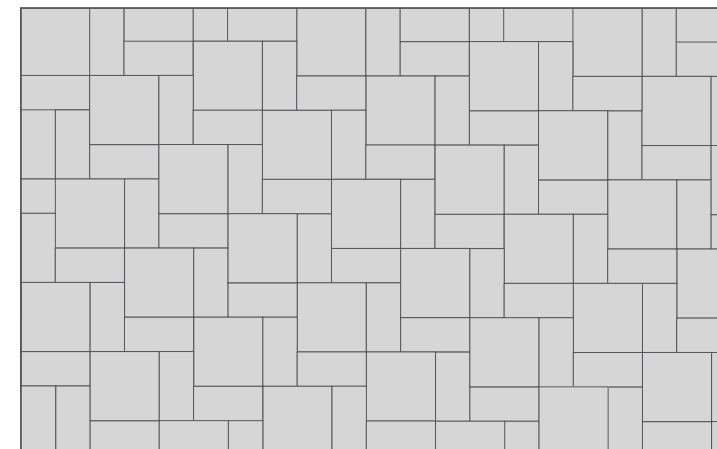
Nr. 1 pcs	23½" x 47½" - 60x120 cm	40%
Nr. 2 pcs	23½" x 23½" - 60x60 cm	40%
Nr. 2 pcs	11¾" x 23½" - 30x60 cm	20%



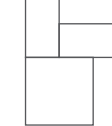
pattern E



Nr. 1 pcs	23½" x 23½" - 60x60 cm	66,7%
Nr. 1 pcs	11¾" x 23½" - 30x60 cm	33,3%



pattern F

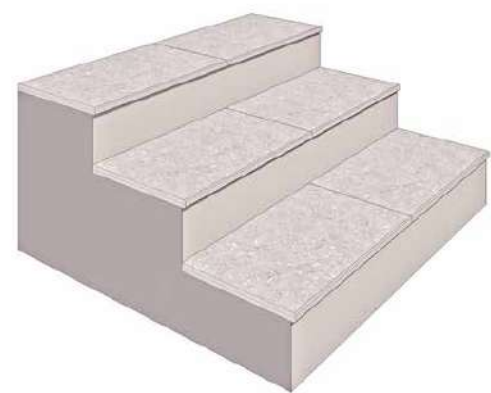
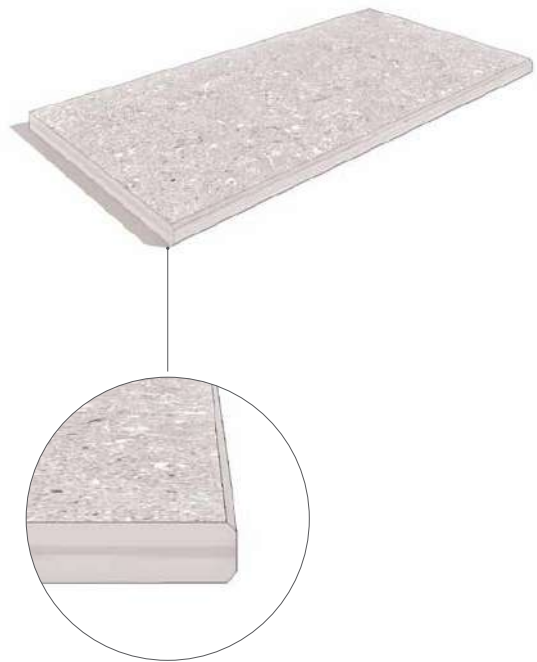


Nr. 1 pcs	23½" x 23½" - 60x60 cm	50%
Nr. 2 pcs	11¾" x 23½" - 30x60 cm	50%

SPECIAL PIECES

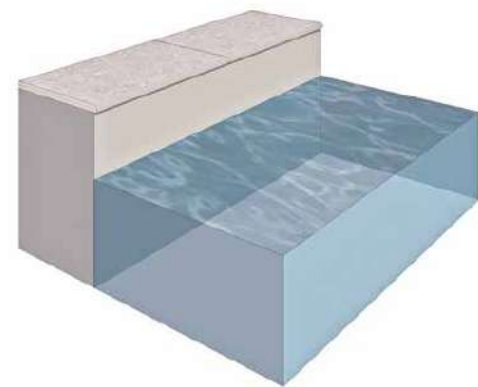
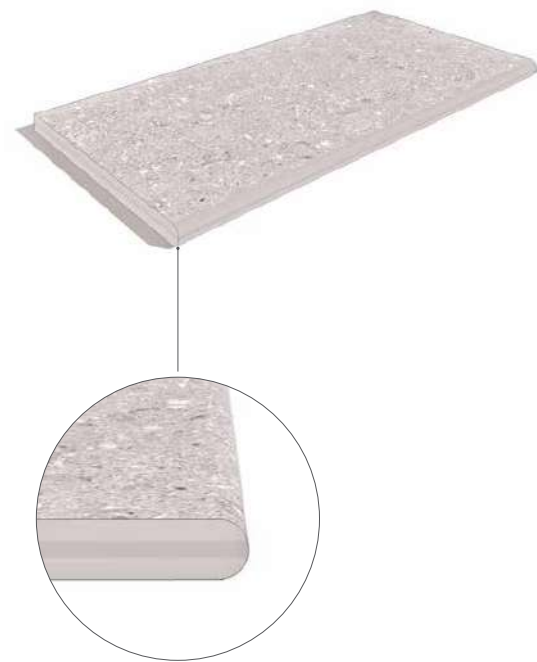
DOUBLE BEVEL COPING

30x60 - 11¼" x 23½"
Available in all colours.



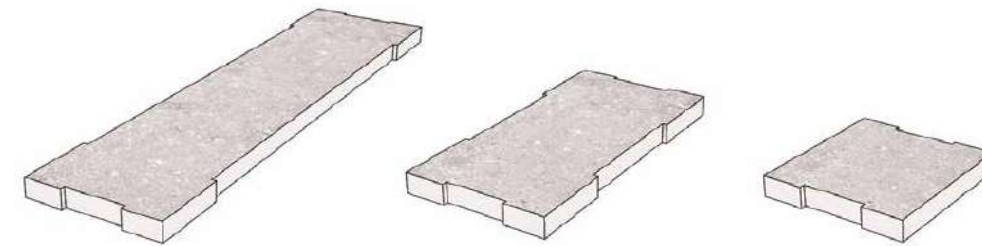
FULL BULLNOSE COPING

30x60 - 11¼" x 23½"
Available in all colours.



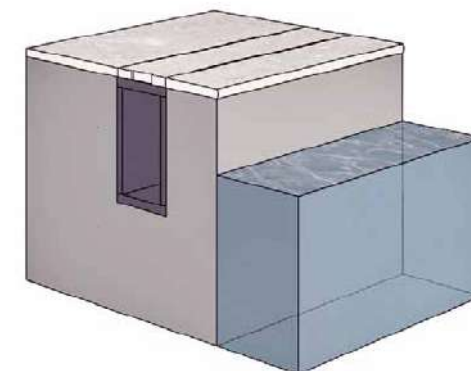
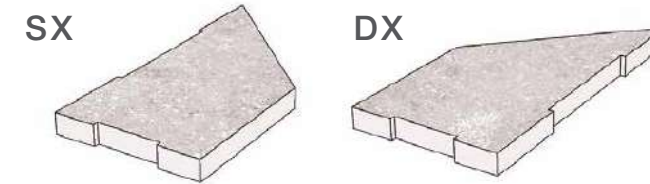
BLIND GRID

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.



PACKAGING

2.0 MONOLITHIC RECTIFIED CERAMIC TILE	Thickness	Unit / Box	SqFt / Box	Boxes / Pallet	SqFt / Pallet	Weight / Box	Weight / M ²	Weight / SqFt	Weight / Pallet	Pallet Size
231/2"x471/8"	3/4" - 20mm	2	15,5	16	248	133,765 lb	92,90 lb	8,630lb	2,165 lb	29"x 49"
113/4"x471/8"	3/4" - 20mm	4	15,5	16	248	138,415 lb	96,12 lb	8,93 lb	2,230 lb	29"x 49"
231/2"x231/2"	3/4" - 20mm	2	7,75	36	279	66,10 lb	91,80 lb	8,530 lb	2,421 lb	42"x 42"
113/4"x231/2"	3/4" - 20mm	4	7,75	40	310	65,875 lb	91,50 lb	8,5 lb	2,676 lb	42"x42"
113/4"x113/4"	3/4" - 20mm	5	4,85	45	218,25	41,50 lb	57,64 lb	8,55 lb	1,910 lb	42"x42"

SHADE VARIATION



TECHNICAL CHARACTERISTICS

STANDARS	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 - C 499	+/- 0.5 % (+/- 2.0 mm)	Complies with standard
	Length and width / ISO - 10545-2	+/- 0.6 % (+/- 2.0 mm)	Complies with standard
ISO - 10545-4 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	-	$\alpha=6.3 \times 10^{-6} \text{ }^{\circ}\text{C}^{-1}$
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)
	Dymanic laod capacity - hand object impact test	-	Test not passed
	Dymanic 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 (sectio n 9.6 ANSIA 137.1 2012)	Slip resistance	-	> 0.60 WET > 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



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