





# A new landmark in the ceramic industry

Landmark Ceramics is an American company, based in Tennessee that has set out to research, manufacture and sell top quality porcelain ceramics in North America, taking advantage of the proven experience of the Gruppo Concorde, an international leader in the sector. Technological innovation, market presence, attention to detail, the welfare of people and the environment, efficient service and a thorough product range make Landmark a new benchmark in the North American market for those who are looking for a reliable partner for any building and architecture project using US made top quality porcelain pavers.

# FRONTIER20

Frontier20 is a line of porcelain pavers that is perfectly suited for the outdoors. The market's demand for a stain proof, slip resistant, chemical resistant, no maintenance product lead to the development of a revolutionary aestheticly superior product that is versitile enough for exteriors as well as interiors. combining the highest level of quality control and technology with state of the art equipment, age old practices have been revitalized to offer a superior Industry leading product. Frontier20 offers a never before seen dimension to your outdoor living area! Please continue to be amazed at extremely realistic natural stone and wood look products.

TRIM TILES	
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LEARN MORE ABOUT





# TRIM TILES TO LANDSCAPE THE OUTDOORS.

\_Frontier20 includes a complete range of special trim pieces to seamlessly complete and accentuate the landscaping of outdoor spaces. The trim tiles represent the ideal solution for the planning of outdoor spaces, commercially or residentially. The special trims feature coordinated aesthetics to match those of the Landmark porcelain paver, for projects that demand total visual continuity.

# DESTINATION OF USE.

- → STAIRS
- **→POOLS**
- → WALL COVERS

### PROJECT

FLOOR DESIGN
Frontier20 Silver Quartz - 24"x24"
Frontier20 Silver Quartz Linear Cover Drain Set - 24
Frontier20 Silver Quartz Coping - 24"x13"
Frontier20 Silver Quartz Coping Corner - 24"x13"
Frontier20 Silver Quartz Stair Tread - 24"x13"
Frontier20 Silver Quartz Stair Tread Grip - 24"x13"
Frontier20 Silver Quartz Riser - 24"x8"
Frontier20 Silver Quartz Roser - 24"x12"

GRIP STAIR TREAD

RISER P. 7

LINEAR COVER DRAIN SE

COPING CORNER

END COVER COVER



COPING &
STAIR TREAD
MONOLITHIC.
A UNIQUE
PIECE, A
THOUSAND
SOLUTIONS.

Coping & Stair Tread Monolithic\* is processed in order to cater to multiple needs in outdoor design. Two different border shapes, bullnose (rounded) border and rectified border, in one single piece: freedom for projects with the excellent technical performance of porcelain stoneware.



\* Coping & Stair Tread Monolithic is available in the following colors: Barge Gold, Multicolor Gold, Silver Quartz, Vintage Slab.









# **DESTINATION OF USE.**

- → STAIRS
- → POOLS

\_A trim piece offering outstanding versatility, both in terms of look and efficiency. Thanks to its two different border shapes, Coping & Stair Tread Monolithic is suitable both for **swimming pool copings and for stairs**, in two different versions: with or without grip strips.





# STAIRS WITH AN IN-DEMAND AESTHETIC THAT IS ALSO HIGH PERFORMING.

# SYSTEM.

- → STAIR TREAD
- → GRIP STAIR TREAD
- → RISER

# **ADVANTAGES.**

- → RESISTANCE TO SALTS
- → RESISTANCE TO CHEMICALS
- **→ TECHNICAL PERFORMANCE**
- → ANTI-SLIP
- → VISUAL CONTINUITY TO THE OUTDOOR FLOOR







# **COMFORT AND** STYLE FOR **SWIMMING POOL AREAS.**

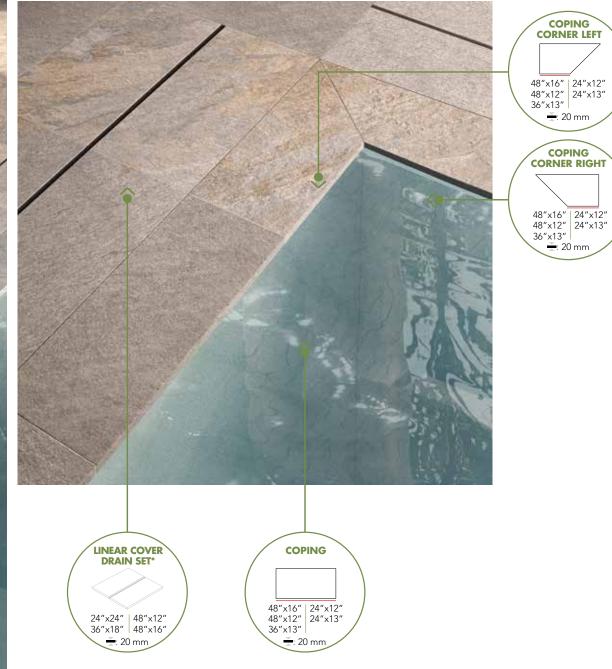
# SYSTEM.

- → LINEAR COVER DRAIN SET
- → COPING
- → COPING CORNER

# **ADVANTAGES.**

- → RESISTANCE TO SALTS
- → RESISTANCE TO CHEMICALS
- → ANTI-SLIPPERINESS
- → DURABILITY
- → EASY TO CLEAN
- → VISUAL CONTINUITY TO THE OUTDOOR FLOOR





<u></u> 20 mm

=: 20 mm

<sup>\*</sup> The Linear Cover Drain Set is made-up of two pieces, each having a further beveled and polished edge. The two pieces are studied to be laid with the beveled and polished edges facing each other in order to create an open joint. See pages 37, 38, 39, 40 for more details.



# WALL COVERS: PROTECTION FROM WATER AND VISUAL CONTINUITY.

# SYSTEM.

- → COVER
- → END-COVER

# **ADVANTAGES.**

- → ANTI-DETERIORATION
- → EASY TO CLEAN
- → PROTECTS THE WALL FROM WATER INFILTRATION

10 11

**COVER\*** 36"X12" 12"x24" <u>∓</u>: 20 mm **END COVER\*** 36"X12" 12"x24" <u>▼</u>: 20 mm **DRIPSTONE** 

<sup>\*</sup> Both Cover and End-Cover have dripstone and undecorated borders.

# TRIM TILES RANGE 24"x24"

# THICKNESS PORCELAIN PAVERS

CORNER LEFT\*

CORNER RIGHT\*

**COPING\*** 

COPING CORNER\*

CORNER

CORNER LEFT\* **A:** 24"

**B:** 13"

Only bullnose border

TRIM DIMENSIONS

**A:** 24" **B:** 13"

**A:** 24"

**B:** 12"

TRIM DIMENSIONS

**A:** 24" **B:** 13"

**A:** 24"

**B:** 12"

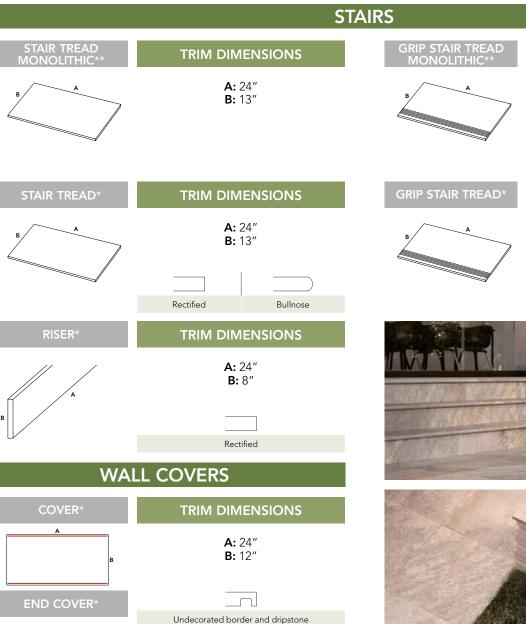
Bullnose

Bullnose

Rectified

Rectified

# TRIM TILES RANGE 24"×24"



# GRIP STAIR TREAD MONOLITHIC\*\* A: 24" B: 13" Grip on rectified side Grip on bullnose side



TRIM DIMENSIONS





- \* Available in standard version (with undecorated borders).
- \*\* Monolithic trim pieces (with decorated borders), available in the following colors: Barge Gold, Multicolor Gold, Silver Quartz, Vintage Slab.

# COPING MONOLITHIC\*\* A: 24" B: 13" Coping Corner Monolithic\*\* TRIM DIMENSIONS LINEAR COVER DRAIN SET\* A: 24" B: 11,63" Open Joint width 0,28" (\*/32") Open joint width 0,28" (\*/32")

**POOLS** 





- \* Available in standard version (with undecorated borders).
- \*\* Monolithic trim pieces (with decorated borders), available in the following colors: Barge Gold, Multicolor Gold, Silver Quartz, Vintage Slab.

13

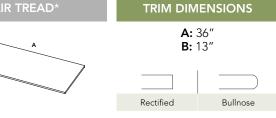
2



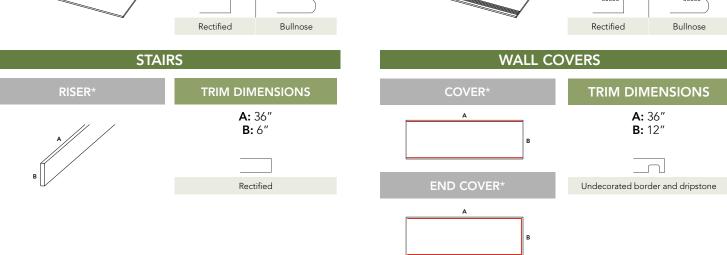
STAIR TREAD\*

# TRIM TILES RANGE 18"x36"

# STAIRS







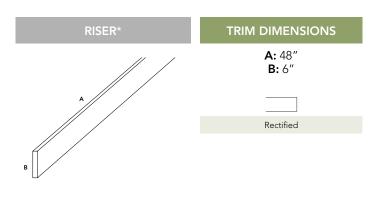


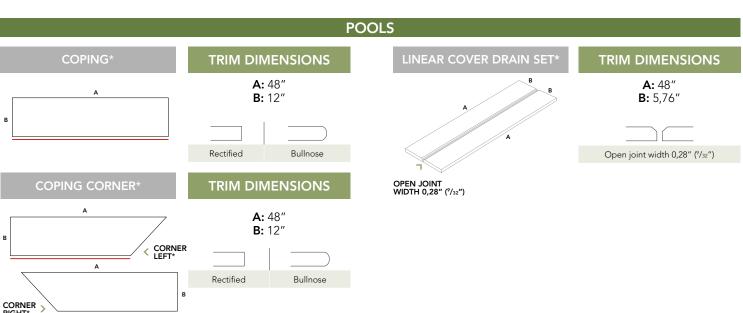
### **POOLS COPING\*** TRIM DIMENSIONS LINEAR COVER DRAIN SET\* TRIM DIMENSIONS **A:** 36" **A:** 36" **B:** 13" **B:** 8,71" OPEN JOINT TWIDTH 0,28" (°/32") Rectified Bullnose Open joint width 0,28" (9/32") **COPING CORNER\*** TRIM DIMENSIONS **A:** 36" **B:** 13" CORNER LEFT\* Rectified Bullnose CORNER \* Available just in standard version (with undecorated borders)

# TRIM TILES RANGE 12"x48"







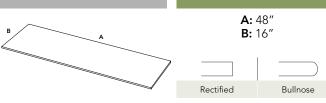


<sup>\*</sup> Available just in standard version (with undecorated borders)



# TRIM TILES RANGE 16"x48"

### STAIRS STAIR TREAD\* TRIM DIMENSIONS

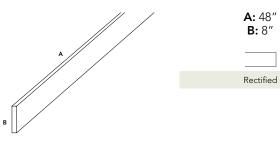


### GRIP STAIR TREAD\* TRIM DIMENSIONS



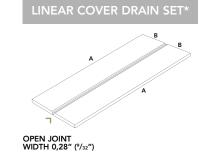


# TRIM DIMENSIONS



## POOLS

# COPING\* TRIM DIMENSIONS **A:** 48" **B:** 16" Rectified Bullnose



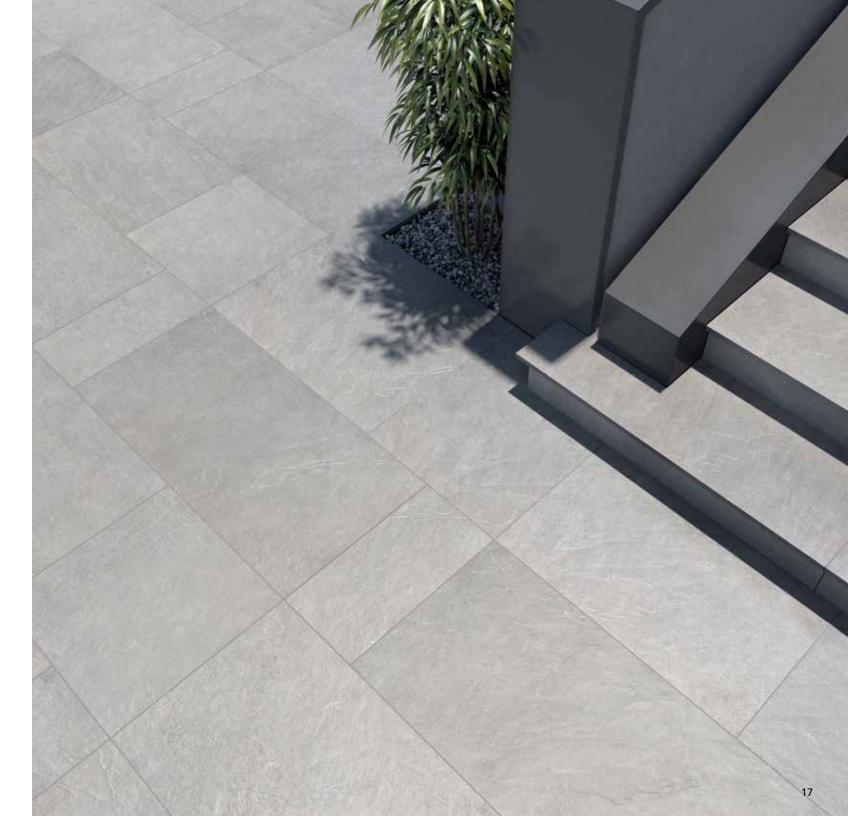
# TRIM DIMENSIONS



# COPING CORNER\*

# TRIM DIMENSIONS **A:** 48" **B:** 16" CORNER LEFT\* Rectified Bullnose CORNER RIGHT\*

### \* Available just in standard version (with undecorated borders)



# TRAVERTINE LOOK

TRAVERTINE CROSS CUT WHITE AMERICANSTONE **★** 



Available size **₹**0.8″

Color shading V2

TRIM TILES ₹ 0.8"

COPING CORNER LEFT

COPING CORNER RIGHT

The color of pavers printed in this catalog may differ from actual pavers. Paver color reproductions in this catalog are representative only. Slight tone and shade variations are inherent in porcelain pavers. Before selecting a color, we recommend that you contact your local representative, who will provide you with a sample piece of the requested paver. This porcelain paver product is manufactured with a V1/V2/V3/V4 shade variation. Remember that the amount of color as well as the texture of each piece may vary from paver to paver. Inspect the product immediately upon delivery and select pavers from many boxes during installation to minimize and blend any possible color difference.

# TRAVERTINE LOOK

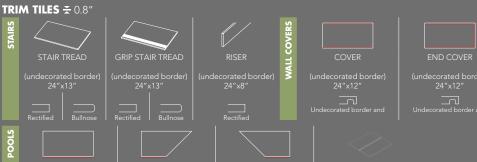
TRAVERTINE CROSS CUT SILVER AMERICANSTONE **★** 

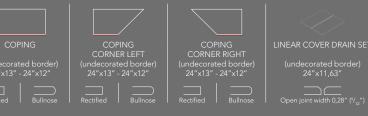


Available size **₹**0.8″

\$10% Color shading







# TRAVERTINE LOOK

### TRAVERTINE CROSS CUT CREAM AMERICANSTONE ±



Available size 24"x24"

Color shading V2

TRIM TILES ₹ 0.8"

COPING CORNER LEFT

COPING CORNER RIGHT

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# TRAVERTINE LOOK

















# **BLUESTONE** LOOK



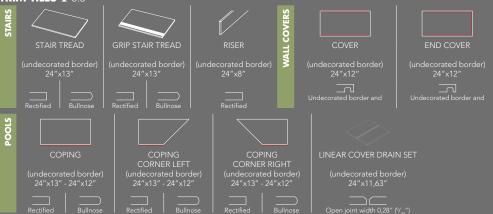
# 



Color shading







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# BLUESTONE LOOK







Color Shading









# FLAGSTONE LOOK

AMERICANSTONE **★ FLAGSTONE** PINK-TAN

# Available sizes

\$10%

Color shading

V4



























# FLAGSTONE LOOK

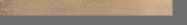




























TRIM TILES ₹ 0.8'



COPING CORNER LEFT



# SLATE LOOK



### Available size





Color shading

V3

### TRIM TILES ₹ 0.8"



COPING MONOLITHIC



COPING CORNER MONOLITHIC LEFT























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COPING CORNER LEFT

# SLATE LOOK







**₹**0.8″



Color shading



### TRIM TILES ₹ 0.8"



















COPING CORNER LEFT



# SLATE LOOK







V2





COPING MONOLITHIC



COPING CORNER MONOLITHIC LEFT



















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# SLATE LOOK



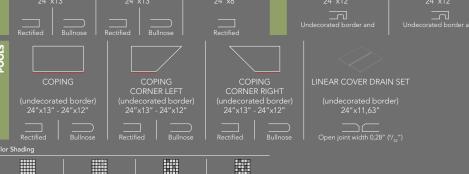












# FRONTIER20

### **COLORED BODY PORCELAIN PAVERS** - Rectified Monocaliber

# MARBLE LOOK

### MICHELANGELO EXTRA WHITE



### Available size

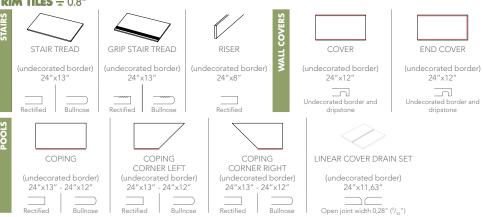


24"x24" ¥ 0.8"

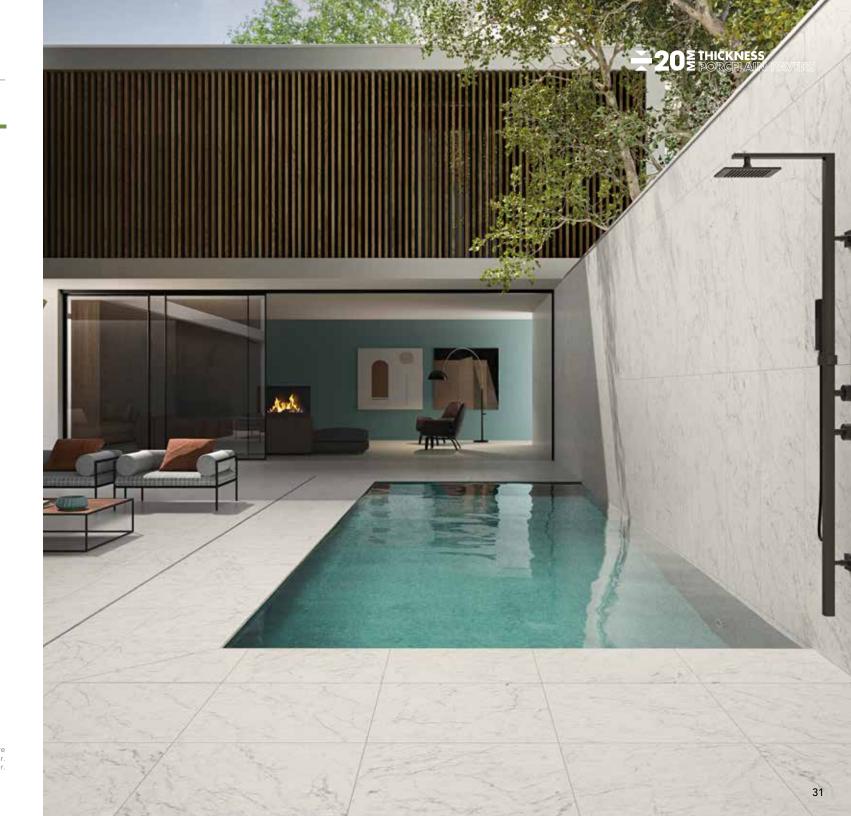
### Color shading



### TRIM TILES ¥ 0.8"



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# STONE LOOK



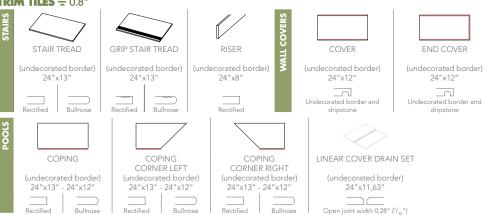
### Available size



### Color shading



### TRIM TILES ₹ 0.8"



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# STONE LOOK

### DESERT





Available size

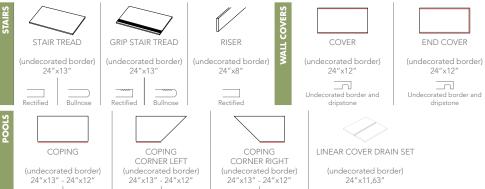
24"x24" ₹ 0.8″

### Color shading



Open joint width 0,28" (9/32")

### TRIM TILES = 0.8"











Rectified

# ₹20\ THICKNESS PORGELAIN PAYERS

### **COLORED BODY PORCELAIN PAVERS** - Rectified Monocaliber

# STONE LOOK

### ABSOLUTE



### Available size



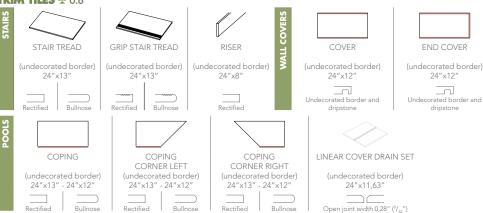
24"x24" ₹ 0.8"



### Color shading



### TRIM TILES ₹ 0.8"



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# STONE LOOK

### COSMOS



# \$10%

Available size

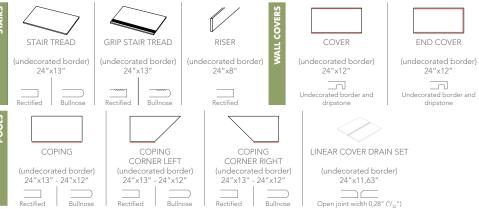
24"x24"

₹ 0.8″

### Color shading



### **TRIM TILES** ₹ 0.8"



Color Shading







V4 JBSTANTIAL VARIATION

QUARTZ LOOK

### **GLOBE BARGE GOLD**



### Available sizes



### Color shading

V3

### TRIM TILES ₹ 0.8"

















Undecorated border and

dripstone







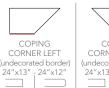






















Open joint width 0,28" (9/22")

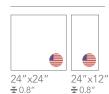
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# QUARTZ LOOK

### **GLOBE SILVER QUARTZ**



### Available sizes



Color shading



COPING

CORNER LEFT

(undecorated border)

24"x13" - 24"x12"



COPING

MONOLITHIC

(decorated border)

24"x13"





COPING CORNER

MONOLITHIC LEFT

(decorated border)

24"x13"

Only hullnose horder



COPING CORNER

MONOLITHIC RIGHT

(decorated border)

24"x13"



COPING

undecorated border)

24"x13" - 24"x12"







COPING





Undecorated border and dripstone



Open joint width 0.28" (%/,,")

Color Shading









# **CONCRETE** LOOK

### **ATTITUDE WARM SAND**

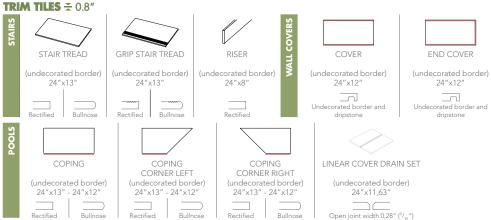


### Available size



### Color shading





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# **CONCRETE** LOOK

### **ATTITUDE SIMPLY GREY**





Available size

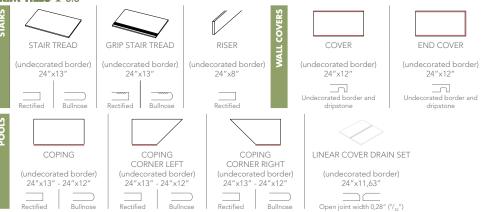




### Color shading



### TRIM TILES # 0.8"









# WOOD LOOK

### **NATURAL DESIGN** WALNUT



### Available size



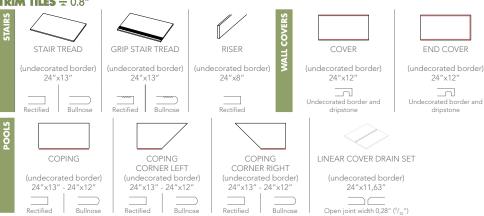
24"x24" ₹ 0.8″



Color shading



### TRIM TILES ₹ 0.8"



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# LIMESTONE LOOK

### **NATURAL DESIGN PEPPER**



# \$10%

Available size

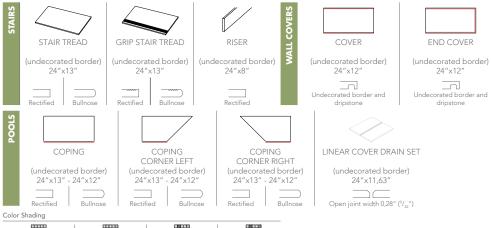
24"x24"

₹ 0.8″

### Color shading



### TRIM TILES # 0.8"







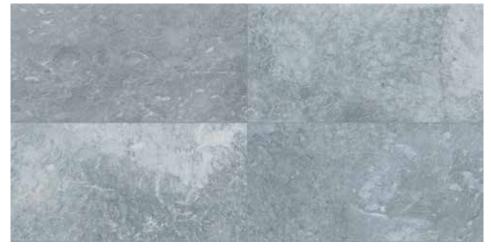


# ₹20 E THICKNESS

### **COLORED BODY PORCELAIN PAVERS** - Rectified Monocaliber

# STONE LOOK

### SIGHT ANTHRACITE



### Available size



18"x36" **₹**0.8″



Color shading



### **TRIM TILES** ₹ 0.8"



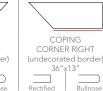
COPING

GRIP STAIR TREAD (undecorated border) 36"x13"



















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# STONE LOOK

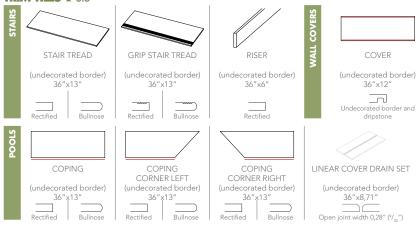
### SIGHT GREY







### TRIM TILES ₹ 0.8"







# ₹20 E THICKNESS

### **COLORED BODY PORCELAIN PAVERS** - Rectified Monocaliber

# STONE LOOK

### PIETRA DI BAGNOLO



### Available size



18"x36" **₹**0.8″

### Color shading



### TRIM TILES ¥ 0.8"



COPING

(undecorated border)



36"x13"

COPING

CORNER LEFT

(undecorated border)

36"×13"



















# TRAVERTINE LOOK

### **SOURCE BEIGE**



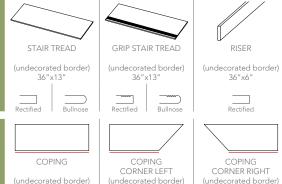


18"x36" **₹**0.8″

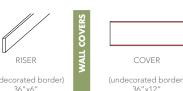


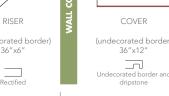


### TRIM TILES ¥ 0.8"



36"×13"









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Color Shading









36"×13"

QUARTZ LOOK

PIETRA DI BARGE



Available size



18"x36" **₹**0.8″

Color shading



**TRIM TILES** ¥ 0.8"





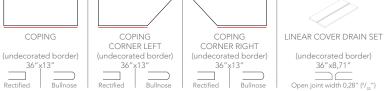












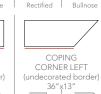
COPING (undecorated border)

**TRIM TILES** ₹ 0.8"

STAIR TREAD

(undecorated border)

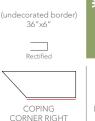
36"x13"



GRIP STAIR TREAD

(undecorated border)

36"x13"



36"×13"



# QUARTZ LOOK

### POINT SILVER

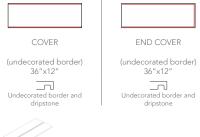








RISER



The color of pavers printed in this catalog may differ from actual pavers. Paver color reproductions in this catalog are representative only. Slight tone and shade variations are inherent in porcelain pavers. Before selecting a color, we recommend that you contact your local representative, who will provide you with a sample piece of the requested paver. This porcelain paver product is manufactured with a V1/V2/V3/V4 shade variation. Remember that the amount of color as well as the texture of each piece may vary from paver to paver. Inspect the product immediately upon delivery and select pavers from many boxes during installation to minimize and blend any possible color difference.

Color Shading









# THICKNESS PORGELAIN PAVERS

### **COLORED BODY PORCELAIN PAVERS** - Rectified Monocaliber

# WOOD LOOK

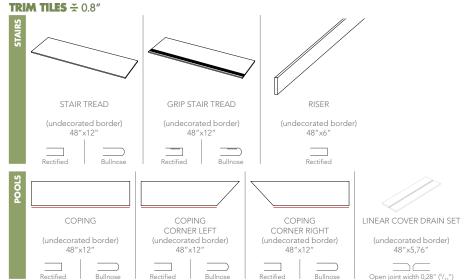
### SOUL WALNUT





## Color shading





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# WOOD LOOK

### **SOUL GREY**





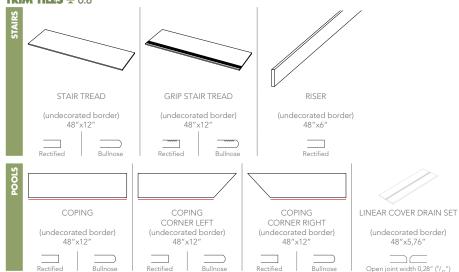
Available size

12"x48"

₹0.8"



### **TRIM TILES** ₹ 0.8"



### Color Shading







V4 SUBSTANTIAL VARIATION

# ₹20\begin{array}{c} THICKNESS PAVERS

### **COLORED BODY PORCELAIN PAVERS - Rectified Monocaliber**

# WOOD LOOK

### LOGOS BROWN



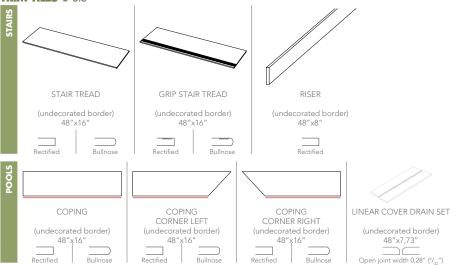
### Available size



### Color shading



### TRIM TILES ¥ 0.8"



The color of pavers printed in this catalog may differ from actual pavers. Paver color reproductions in this catalog are representative only. Slight tone and shade variations are inherent in porcelain pavers. Before selecting a color, we recommend that you contact your local representative, who will provide you with a sample piece of the requested paver. This porcelain paver product is manufactured with a VIV/ZV/3AV4 shade variation. Remember that the amount of color as well as the texture of each piece may vary from paver to paver. Inspect the product immediately upon delivery and select pavers from many boxes during installation to minimize and blend any possible color difference.

# WOOD LOOK

### MITO BROWN



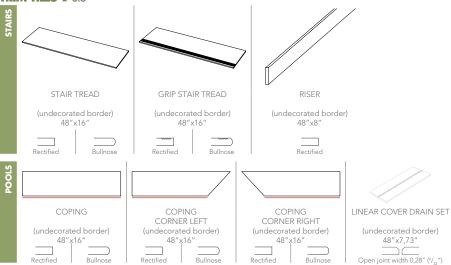
### Available size



### Color shading



### TRIM TILES ¥ 0.8"



### Color Shading

V1	
LINIECDM ADDEADANCE	





V4 SUBSTANTIAL VARIATION

# INSTALLATION INFORMATION AND RECOMMENDATIONS.



### INSTALLATION INFORMATION AND RECOMMENDATIONS.

Specific details and instructions are given for each of the following installation options. Different climates and geographical locations will affect the thickness of the base. Depending on the location, contractors will install the standard base thickness to install porcelain pavers for the needs of the area. When installing porcelain pavers, the bedding course sand must be pre-compacted and then struck off with a screed to the required thickness as shown in the drawings. Before the laying of the porcelain pavers, the sand layer underneath must be pre-compacted. The sand layer needs a 5 to 6% moisture content to insure a smooth strike off finish.

### Compacting dry sand will not give the desired results.

- → Only use a paver saw with a wet cut porcelain blade to wet cut porcelain pavers.
- → Before installing your porcelain pavers in sand set installations, pre-compact and strike off your sand leveling course.
- → Plastic <sup>3</sup>/<sub>16</sub>" (4 mm) spacers must always be used to install pavers on sand set and permeable installations. The photo on the right illustrates the use of the <sup>3</sup>/<sub>16</sub>" spacer to support and space the 4 paver corners.
- → Never install pavers with porcelain to porcelain contact.
- → The use of plate compactors is not recommended to be used on the porcelain pavers.

### **JOINT FILLING**

When installing porcelain paver on sand set base, fill the 4 mm (approx  $\frac{3}{16}$ ") paver joints with these options:

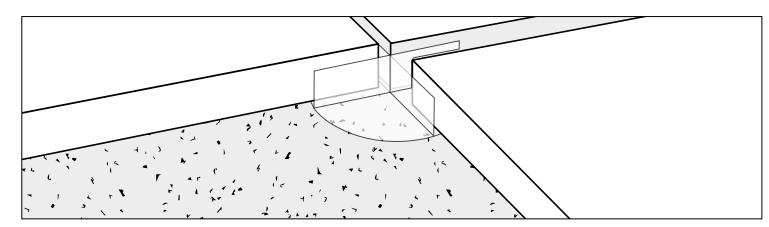
### Traditional sand

Fill the open joints with traditional dry sand until completely filled. Sweep any excess sand off the pavers. Refilling of the joints with sand may be needed in the future due to wind and rain erosion.

### Polymeric sand

Polymeric sand is a blend of polymers which harden when subjected to moisture. Sweep the sand into the open joints until completely filled. All excess sand and dust must be swept from the surface. Use a blower for the final dust removal to make certain all excess sand is removed. Any residual sand or dust can result in staining of the surface.

Once the filling of the joints and the cleaning of the surface is complete, mist the pavement with water which activates the polymer and cures the mixture.



### HANDLING AND SPECIALTY TOOLS.

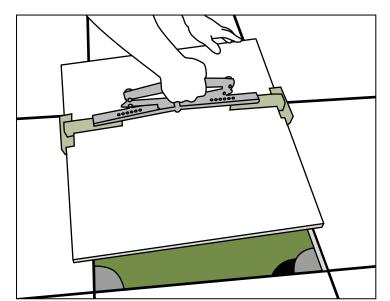
Porcelain paver pallets are shipped with a very strong plastic covering and the individual units are packaged in protective cardboard boxes. The protective cardboard boxes guard them from the possibility of chipping.

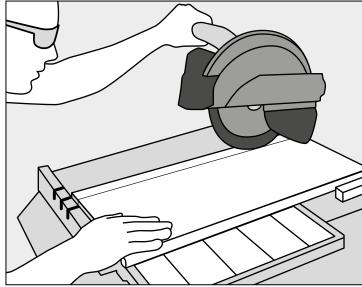
The handling of multiple loose stones can result in damaging or chipping of the pavers. Protect any un-used boxed pavers from the elements once the plastic shipping cover is removed.

This insures the integrity of the protective cardboard boxes.

Wet cut paver saw is used to cut paver accurately and cleanly to fit around edges and corners. The saw must be equipped with a diamond blade manufactured for wet cutting porcelain and designed to safely cut a 24" (60 cm) length porcelain paver.

A paver clamp to easily handle the installation and removal of pavers. Gloves are highly recommended while handling and installing porcelain slabs to protect the hands from injury. Notched trowels and grout float tools for cementitious adhesive and grout Installation. Follow the adhesive and grout manufacturer's recommendations to select the appropriate tools needed for application.





### IMPORTANT NOTE: LEGAL DISCLAIMER

The nominal measurements include 4 mm (approx  $^3/_{16}$ ") for product spacers which are sold separately. Although extreme care has been taken to ensure the accuracy of all measurements set forth herein, manufacturer assumes no liability relating thereto.

### IMPORTANT NOTE

- 1. Use the manufacturer's instructions when choosing polymeric sand for your project.
- The use of cement blended sand and polymeric sand can reduce plant growth and insect infiltration within the joint infill material
- Whether using traditional sand or a cemented blended sand, ensure the gradation of the sand is fine enough to pass through and fill the <sup>3</sup>/<sub>16</sub>" (4 mm) joints.

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# **CLEANING INFORMATION** FOR PORCELAIN PAVERS INSTALLED OVER CONCRETE

### FIRST FLOOR DEEP CLEANING AFTER INSTALLATION OVER CONCRETE

After Grouting the Joints (pic. 1) It is important to remove the excess grout with a sponge and clear water (pic. 2). After 12/48 hours, the grout in the joints will have "set up" /hardened significantly. There will be a noticeable residual "haze". Typically, a diluted acid cleaner specifically for removing "Grout Haze", combined with a soft scrubbing pad will remove the majority if not all the "Haze". Change your acid/water solution frequently for best results. It is also recommended to keep a bucket of clean water to remove the acid/water solution. It is recommended to keep and use clean dry towels to help remove as much residual water and keep the floor as dry as possible.

Please refer to the cleaning chemical company's suggested methods and dilution rates. (pic. 3). For areas with excess grout or grout that becomes adhered to the face of the tile, further cleaning with an Acid/ Water Solution may be necessary. Please refer to the Cleaning Chemical Company's instructions as not all acids or chemicals are the same.

The excess grout residue (pic. 4-5) must be removed so that it does not dry and stick on the surface. It is necessary to change the cleaning water frequently and rinse well. Care must be taken on inlayed, polished and especially Anti Slip products similar to Frontier20. The use of a floor-washing machine combined with the use of a diluted acid detergent helps reach the spaces between adjacent tiles and clean them properly. If such a cleaning procedure is not carried out, or if such cleaning is carried out too late, the grout residue creates an absorbent film, which holds dirt, making the surface difficult to clean: in this case, Landmark Ceramics will not be liable for any damage caused to the surface.

### **ORDINARY CLEANING**

Ordinary maintenance must be carried out using specialized detergents to remove stains but these detergents must not leave a wax, film or membrane residue. Rinsing well with plenty of clean water is a fundamental part of the cleaning procedure, therefore we advise against the use of products which state that they "do not need rinsing".

### OTHER RECOMMENDATIONS

Bright colored products, in particular white and extra-white tiles, are very delicate and, although

for all intent and purpose are hygienically clean, However, they can get dirthy more easily than darker tiles. It is therefore necessary to remember that these particular products require careful regular maintenance. Sealers are unnecessary, especially in the case of our Frontier20 Product line. Sealing will change the D.C.O.F. (Dynamic Co-efficient of Friction) resulting in a surface that will become more slippery. Also because Porcelain has such a low absorption the sealer will unlikely stick and most likely the sealer will flake off over time.



PIC 1. Fill joint with grout.



PIC 2. Remove excess grout with clean water.



PIC 3. Add specific acid cleaning agent for porcelain tile to clean water.



after 12/48 h from installation.



PIC 4. First floor deep cleaning PIC 5. Removal of excess grout residues with hard brush.

# **CLEANING AGENTS**



TYPE OF STAIN	SOLUTION	DETERGENTS	MANUFACTURER			
		INORGANIC STAINS				
Cement		DETERGE	DETERGENT WITH AN ACID BASIS *			
Carbon Calcium Efflorescence Chalk Metallic residues Rust Acid		<b>DETERDEK</b> or similar	UNITED STATES > Fila Chemicals USA, Corp.10800 N.W. 21st Street #170 Miami, FL 33172 USA Tel. +1-305-513-0708 email filausa@filasolutions.com			
Cement-based grout Colored grout Wall paint		KERANET (liquid) or similar	MAPEI Americas Headquarters 1144 E. Newport Center Drive Deerfield Beach, Florida 33442			
		ORGANIC STAINS				
			FOAM TYPE PRODUCT **			
Coca Cola Ice Cream Coffee Wine Beer Animal fats Vegetable fats Mustard Mayonnaise Ketchup Jam Linseed oil Lipstick Wax	Alkaline and neutral	PS87 or similar	UNITED STATES > Fila Chemicals USA, Corp. 10800 N.W. 21st Street #170 Miami, FL 33172 USA Tel. +1-305-513-0708 email filausa@filasolutions.com			
		FILACLEANER or similar	UNITED STATES > Fila Chemicals USA, Corp.10800 N.W. 21st Street #170 Miami, FL 33172 USA Tel. +1-305-513-0708 email filausa@filasolutions.com			
		Ammonium	Universal			
RESIDUAL RINGS of organic nature	Saline solution	Sodium hypochloride (bleach for white laundry)	Universal			
Silicone oils Machine Oil		FILASOLV or similar	UNITED STATES > Fila Chemicals USA, Corp.10800 N.W. 21st Street #170 Miami, FL 33172 USA Tel. +1-305-513-0708 email filausa@filasolutions.com			
Resins and glazes Coal and natural rubber		Aceton	Universal			
Encres et feutres		NITRO - THINNER	Universal			
		TURPENTINE	Universal			
		TRICHLORETHYLENE	Universal			
Tire		CIF AMMONIACAL	Universal			
		HAND CLEANSER	Universal			

N.B. When using the above products, the instructions on the package should be followed.

Silicone and chewin-gum

Detergent with an acid base: a detergent with an acid basis, specifically recommended after bath floor or wall installation, for the decalcioficant cleaning and the regular maintenance.

Ice+scraper

" Limited foam type product: a limited foam type product degreasing and general cleaning, suitable for all types of stains but especially for remove of vegetable and animals fats.



### PERFORMANCE COMPARISON PORCELAIN PAVERS VS. COMPETITOR OUTDOOR PAVING MATERIALS

FEATURES	LANDMARK FRONTIER20 PORCELAIN PAVERS	WOOD PAVERS	CLAY BRICK	CIP (CAST IN PLACE) CONCRETE	CONCRETE PAVERS	NATURAL STONE
Stainable	No	Yes	Yes (Highly)	Yes	Yes	Yes (Highly)
Freeze Thaw Proof	Yes	No	No	No	No	No
Salt Resistant	Yes	No	Salt Will Degrade	No	No	No
Acid Resistant	Yes	No	Acid Will Burn	No	No	No
Scratch Resistant	Highly	No	Somewhat	No	No	No
Moisture Absorption	< 0,5%	Highly Varried	5%	5%	5-10%	>= 5%
Easy To Repair	Yes	Yes	No	Can Not	No	No
Uv Resistant	Unaffected	No	Yes	If Sealed	Yes/No	Unaffected
Needs Sealed	Never	Yes	Recommended	Recommended	Recommended	Recommended
Pressure Washer Safe	> 1500 PSI	No	Not Recommended	> 1500 PSI	No	No
Environmentally Friendly	Facility 98% Green	Many Exotic Rainforest Species	No	Large Carbon Foot Print	Possible Fly Ash Content	Mined Or Imported
Recycled Content	20% In Each Paver	No	Not Possible	Not Possible	If Possible Less Than 5%	Not Possible

PHYSICAL PROPERTIES	TEST ASTM	NORTH AMERICAN STANDARD A137.1*	RESULTS
Water absorption *	C373	≤ 0.5%	COMPLY WITH ANSI A137.1
DCOF Average dynamic coefficient of friction **	BOT 3000 test	≥ 0.42	≥ 0.42
Skid Resistance	DIN 51097 DIN 51130	-	A+B+C R11
Resistance to freeze/thaw cycling *	C1026	As reported	RESISTANT
Resistance to thermal shock	C484	As reported	RESISTANT
Warpage (edge)	C485	Warpage ± 0.4% or ± 0.05 in	COMPLY WITH ANSI A137.1
Warpage (diagonal)	C485	Warpage ± 0.4% or ± 0.07 in	COMPLY WITH ANSI A137.1
Wedging	C502	± 0.25% or ± 0.03 in	COMPLY WITH ANSI A137.1
Chemical resistance	C650	As reported	UNAFFECTED
Resistance to stain	C1378	As reported	UNAFFECTED
Breaking strength	C648	250 lbf or greater	≥2200 lbf
Thickness	C499	Range: 0.04 in	COMPLY WITH ANSI A137.1

\* Average values referred to our production and related to the matt finish of the product.

\*\* As far as values relating to the matt finish of the product and to tests carried out by certified external laboratories whose results are available upon request at Headoffice, we are willing to check the lot you are interested in purchasing.

- Be sure to use pavers belonging to the same caliber.

- Test results are available on request.

- The information provided can be subject to change. Please refer to https://hardscape.landmarkceramics.com for the latest, most accurate and up-to-date information.

### WARNINGS.

Outdoor pavings installed unglued above the ground level are subject to the action of the wind, with the risk, in some cases, of becoming airborne. The manufacturer recommends to require the assistance of a qualified professional in order to check the suitability of the installation system above the ground adopted, in accordance with the local laws and regulations and the conditions of

use. Failure to do so could result in serious injury or property damage.

• If the application of the 20 mm slabs requires the ceramic product used in structural installations, the project engineer and/or customer must carefully assess the project requirements with regard to the technical specifications of the slabs. to prevent the risk of damage or injury, the manufacturer recommends: with regard to a raised floor installation a ceramic slab may fracture on impact if a heavy object falls on it from any significant height. therefore the manufacturer recommends to check the specific intended use before starting the installation and to follow table for raised installation provided below. in certain conditions, reinforcing must be applied on the back of the slabs (double fiberglass mesh) supplied and applied by the manufacturer; with reference to any dry installation system of flooring above the ground level, the manufacturer recommends to comply with local regulations and conditions of use with regard to windload, loadbearing, seismic events, etc. Failure to comply with these recommendations may lead to improper use of the product and could cause serious damage or injury. Failure to adhere to the manufacturer's instructions for installation of slabs on raised pedestal systems may result in serious injury.

• For further information and recommendations concerning the installation systems please refer to https://hardscape.landmarkceramics.com website.



















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Tel. 931.325.5700

