

PIETRE
&
MARM

BLUESTONE



CONTENTS

BLUESTONE

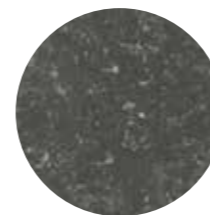


BLACK.....	08
GREY.....	12

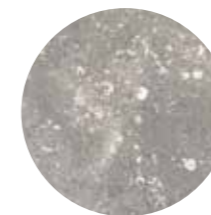
APPENDIX

TECHNICAL SHEET.....	18
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BLUESTONE



BLACK



GREY

// Dalle cave del Belgio arriva un sapore del tutto nordico che rende omaggio alla pierre bleu, pietra del patrimonio Architettonico belga. Bluestone, la nuova serie firmata Rondine, si propone in due formati 20X20 e 20X30 e in due colorazioni Grey e Black che riprendono la colorazione tradizionale della pietra naturale, ma fanno anche reinterpretarla in chiave moderna. Tutto proposto nell'esclusivo spessore 20 millimetri, per dare creatività, eleganza e durevolezza alle vostre zone esterne. //

From the quarries of Belgium, it comes an homage to the pierre bleu, a stone part of Belgian architectural heritage. Bluestone collection is available in sizes 20X20 and 20X30.

The two different colors, Gray and Black, give a modern look to those traditional colors. With its long-lasting quality, the thickness 20mm gives to the environment a creative and elegant look.

C'est à partir des carrières bleues qu'un aspect nordique se développe, rendant hommage à la pierre bleue: pierre du patrimoine architectural belge.

Bluestone, la nouvelle série de Rondine, est disponible en deux formats, 20x20 cm et 20x30 cm, et en deux couleurs, Gris et Noir, qui reflètent la coloration traditionnelle de la pierre naturelle en la réinterprétant de façon moderne.

Tout cela est proposé dans une épaisseur exclusive de 20mm, qui donnera créativité, élégance et durabilité à vos espaces extérieurs.

Aus den belgischen Steinbrüchen stammt ein Hommage an dem Pierre Bleu, einen Stein des belgischen Architekturbes. Die Bluestone-Kollektion ist in den Formaten 20X20 und 20X30 sowie in zwei Farben Grau und Schwarz erhältlich. Diese traditionelle Farbe sind in einem modernen Design neu interpretiert. Die exklusive Dicke von 20 mm gibt zu ihrem Außenbereich Kreativität, Eleganz und Dauerhaftigkeit.



GRES PORCELLANATO SMALTATO
GLAZED PORCELAIN STONEWARE
GRES CERAME EMAILLE
GLASIERTES FEINSTEINZEUG



SMART
EDGE



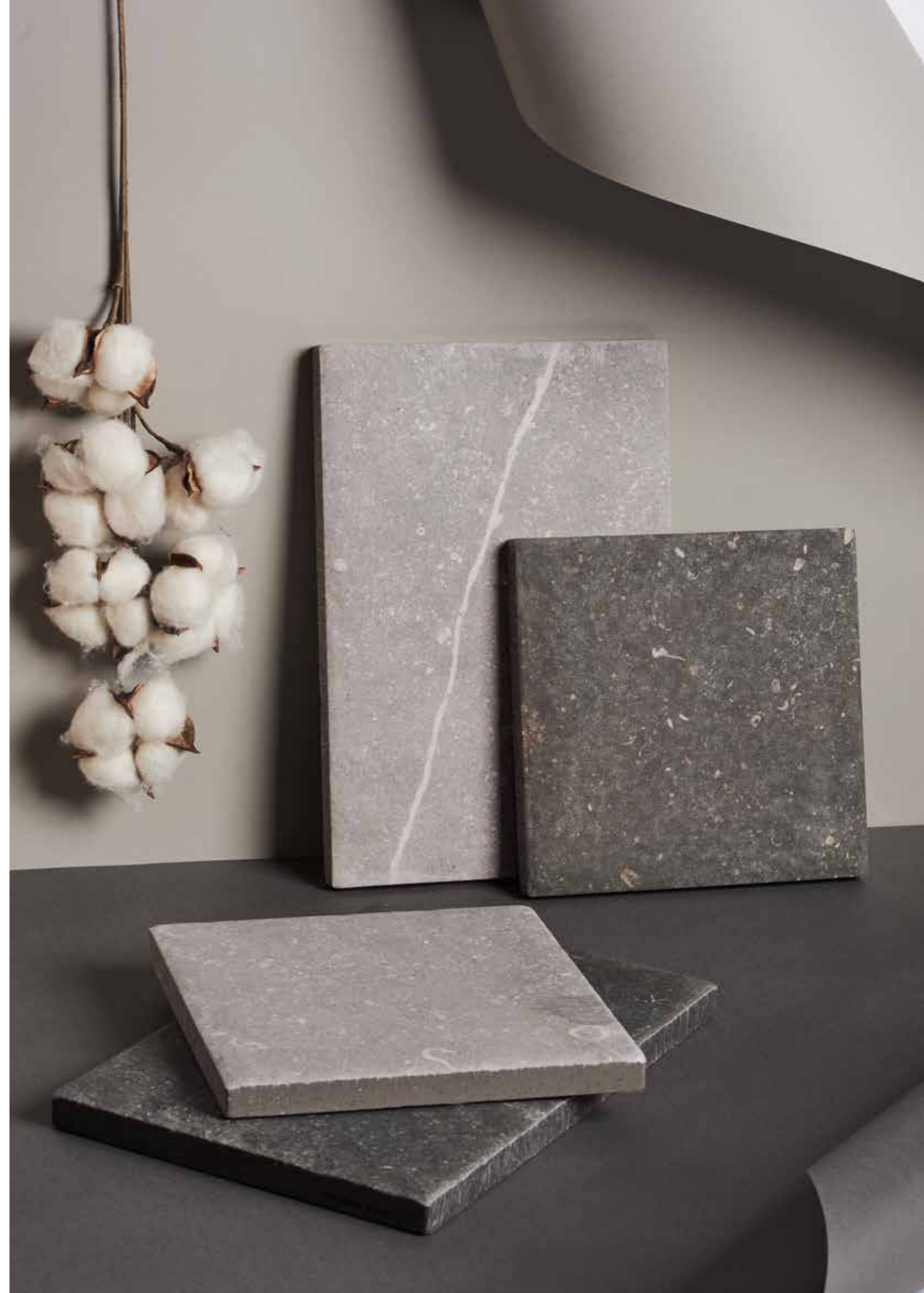
20x30
8"x12"

SMART
EDGE



20x20
8"x8"

Bluestone
Colors



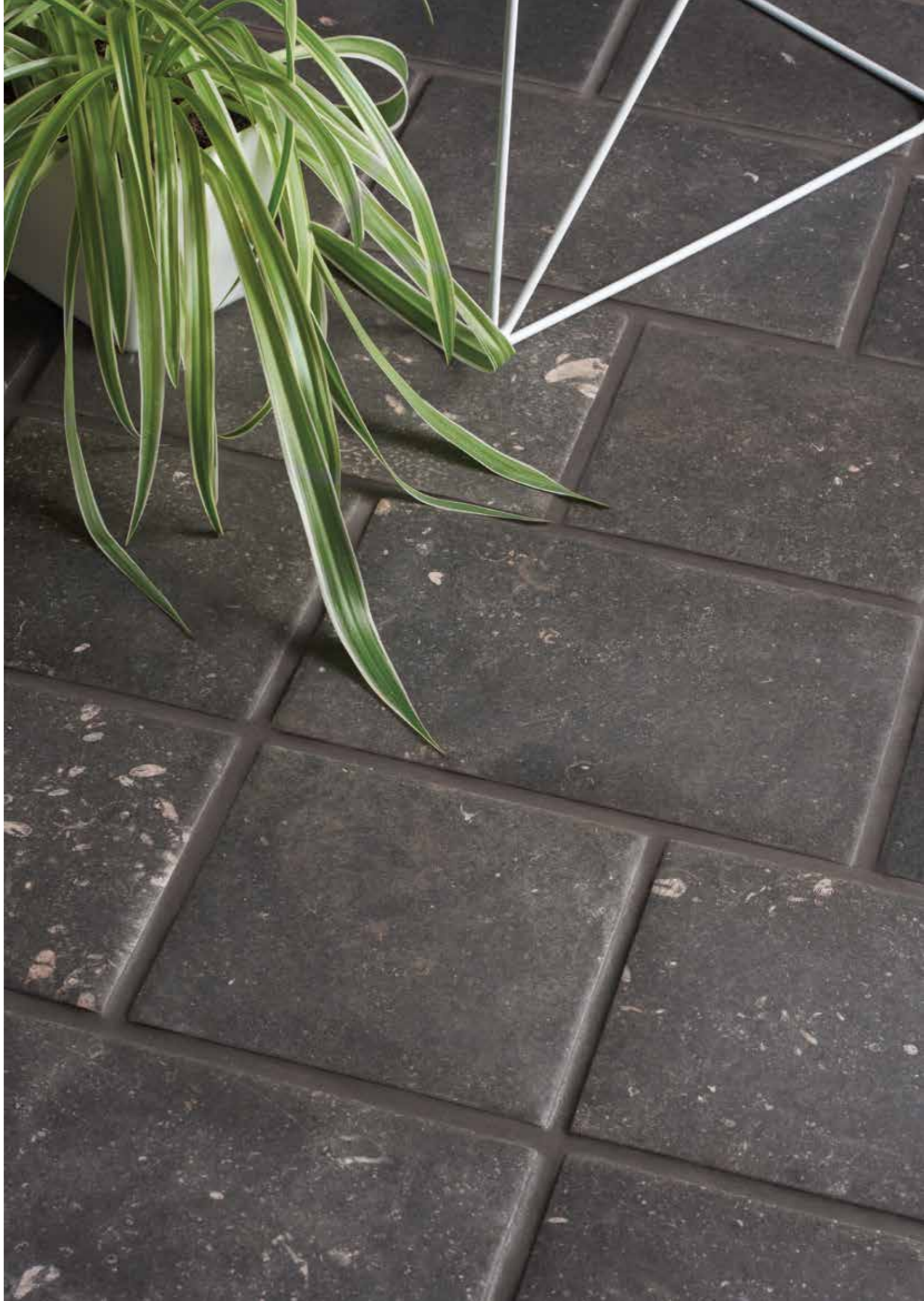
Bluestone
Black



J88851
20x30 (8"x12") Smart Edge



J88849
20x20 (8"x8") Smart Edge



floor
Bluestone - Black 20x20 + 20x30 H20



floor
Bluestone - Black 20x20 + 20x30 H20

BLACK



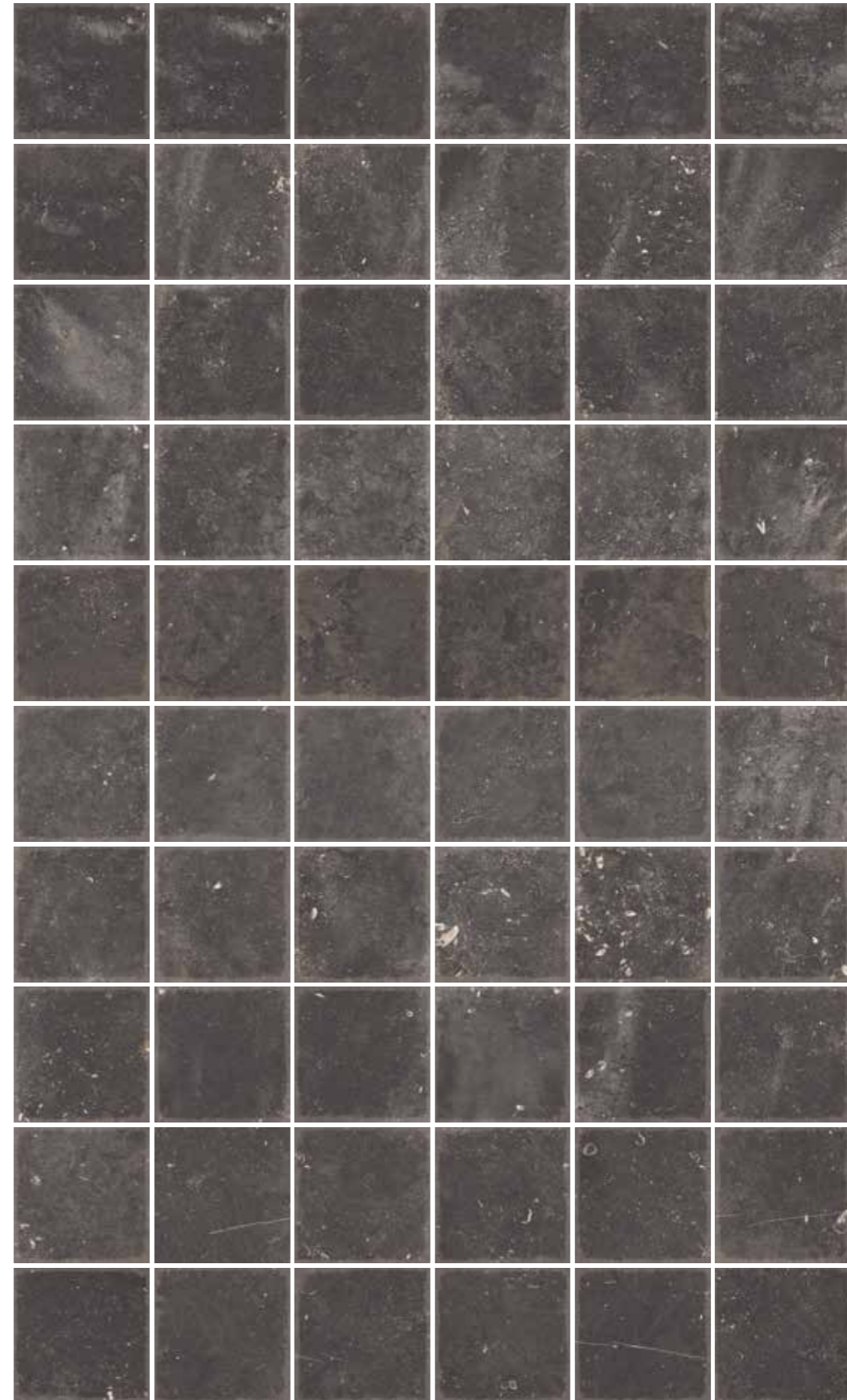
J88851
20x30 (8"x12") Smart Edge



J88849
20x20 (8"x8") Smart Edge



BLACK



60 20x20
GRAFICHE DIVERSE
DIFFERENT PATTERNS
DIFFÉRENTS MOTIFS
VERSCHIEDENE MUSTER

50 20x30
GRAFICHE DIVERSE
DIFFERENT PATTERNS
DIFFÉRENTS MOTIFS
VERSCHIEDENE MUSTER

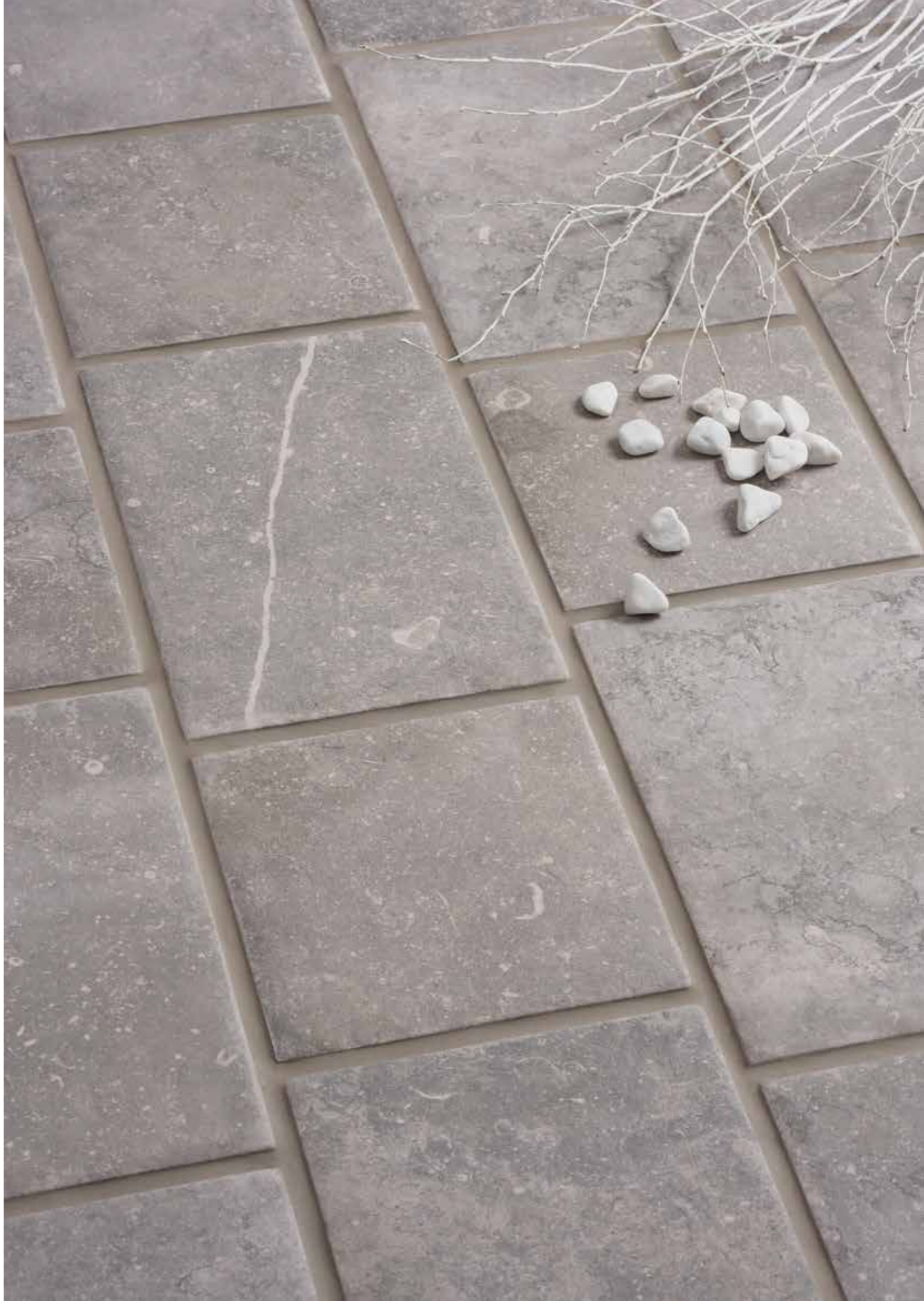
Bluestone
Grey



J88852
20x30 (8"x12") Smart Edge



J88850
20x20 (8"x8") Smart Edge



floor
Bluestone - Grey 20x20 + 20x30 H20



floor
Bluestone - Grey 20x20 + 20x30 H20

GREY



J88852
20x30 (8"x12") Smart Edge



J88850
20x20 (8"x8") Smart Edge



GREY




60 20x20





GRAFICHE DIVERSE
DIFFERENT PATTERNS
DIFFÉRENTS MOTIFS
VERSCHIEDENE MUSTER


50 20x30

GRAFICHE DIVERSE
DIFFERENT PATTERNS
DIFFÉRENTS MOTIFS
VERSCHIEDENE MUSTER



	GREY	BLACK
 20x30 Smart Edge (8"x12") Smart Edge 	J88852	J88851
 20x20 Smart Edge (8"x8") Smart Edge 	J88850	J88849
 Griglia 20x30 (8"x12") Smart Edge 	J89159	J89158
 Griglia 20x20 (8"x8") Smart Edge 	J89167	J89166

FORMATO - SIZE	SPESS. THICKN.	PZ/BOX	M ² /BOX	KG/M ²	BOX/PALLET	M ² /PALLET	KG/PALLET	EURO <1 PALLET	EURO ≥1 PALLET
 20x30 Smart Edge (8"x12") Smart Edge	20 mm	9	0,54	40,37	64	34,56	1395,2	114,50/m ²	99,50/m ²
 20x20 Smart Edge (8"x8") Smart Edge	20 mm	13	0,52	40,77	68	35,36	1441,6	114,50/m ²	99,50/m ²
 Griglia 20x30 (8"x12") Smart Edge	20 mm	6	-	-	-	-	-	33,00 pz/pce	
 Griglia 20x20 (8"x8") Smart Edge	20 mm	4	-	-	-	-	-	28,50 pz/pce	

 Contributo spese imballo € 10,00/pal (netto). - Packing charges € 10,00/pal (net)



0,10%



A • HA • LA



OK



>35 N/mm²



8



5



<140 N/mm²












Dcof: Wet 0,42
Pendulum:
Dry 69 • Wet 60








Caratteristiche tecniche

Technical properties

CARATTERISTICA TECNICA - TECHNICAL PROPERTY CARACTERISTIQUE TECHNIQUE - TECHNISCHE DATEN		METODO DI PROVA TESTING METHOD MÉTHODE D'ESSAI PRÜFNORMEN	VALORE PRESCRITTO DELLA NORMA - REQUIRED STANDARDS VALEUR PRESCRITE PAR LES NORMES - NORMVORGABE
	Assorbimento d'acqua Water Absorption Absorption d'eau Wasseraufnahme	UNI EN ISO 10545-3	≤ 0,5%
	Resistenza a basse/alte concentrazioni di acidi/alkali Resistenza ai prodotti chimici di uso domestico e agli additivi per piscina Resistance to low/high concentrations of alkalis and acids Resistance to household chemical products and swimming pool additives Résistance à faibles/ fortes concentrations d'acides et d'alkalis Résistance aux produits chimiques à usage domestique et aux additifs pour piscine Chemikalien beständigkeit und gegen haushaltschemikalien und badewasserzusätze	UNI EN ISO 10545-13	Classe dichiarata Classe minima B Declared class Minimum class B Classe déclarée Minimum classification B Angegebenen Klasse Mindestklasse B
	Resistenza alla flessione Bending Strength Résistance à la flexion Bruchlast	UNI EN ISO 10545-4	R ≥ 35 N / mm ² S > 700 N (spessore < 7,5 mm) S > 1300 N (spessore ≥ 7,5 mm)
	Resistenza al gelo Frost resistance Résistance au gel Frostbeständigkeit	UNI EN ISO 10545-12	Nessun campione deve presentare rotture o alterazioni apprezzabili della superficie. Samples must not show alterations on the surface. Les échantillons ne doivent pas présenter de ruptures ou d'altérations considérables sur la surface. Die Muster nussen keine Bruch oder Schäden auf dem Oberfläche präsentieren.
	Durezza di Mohs Hardness in Mohs degrees Dureté de Mohs Ritzhärte nach Mohs	UNI EN 101	≥ 5° Mohs
	Resistenza alle macchie Stain resistant Resistance aux taches Fleckbeständigkeit	UNI EN ISO 10545-14	Classe > 3 Classe > 3 Classe > 3 Klasse > 3
	Resistenza all'abrasione superficiale Superficial abrasion resistance Resistance à l'abrasion superficielle PEI Klassifizierung	Classificazione Interna Internal Classification System	Classi di abrasione da I a V Abrasion class from I to V Classe d'abrasion de I à V Abriebklassen I bis V
	Resistenza all'abrasione profonda Deep abrasion resistance Résistance à l'abrasion profonde Tiefenverschleiß	UNI EN ISO 10545-6	≤ 175 mm ³
	Resistenza allo scivolamento (coefficiente di attrito) Slip resistance (coefficient of friction) Résistance au glissement (coefficient de friction) Rutschfestigkeit (Reibungskoeffizient)	DIN 51130 DIN 51097 B.C.R.A. Rep. CEC/81 Dcof ANSI A137.1:2012 BS 7976-2 (pendulum)	Valore dichiarato Declared value Valeur déclarée Wertangabe μ > 0,40 0-24 Scivoloso Slippery Glissant Rutschig 25-35 Scivolosità moderata Moderately slippery Glissance modérée Großer Haftriebwert >36 Basso rischio scivolamento Low slipping risk Risque de glissement faible Sehr Großer Haftriebwert

Caratteristiche tecniche

Technical properties

CARATTERISTICA TECNICA - TECHNICAL PROPERTY CARACTERISTIQUE TECHNIQUE - TECHNISCHE DATEN		METODO DI PROVA TESTING METHOD MÉTHODE D'ESSAI PRÜFNORMEN	VALORE PRESCRITTO DELLA NORMA - REQUIRED STANDARDS VALEUR PRESCRITE PAR LES NORMES - NORMVORGABE			
			N < 7 cm (mm)	7 cm ≤ N < 15 cm (mm)	N ≥ 15 cm (%) (mm)	
	Lunghezza e larghezza Length and width Longueur et largeur Länge und Breite	ISO 10545-2	± 0,5 (*)	± 0,9 (*)	± 0,6 (*)	± 2,0 (*)
	Spessore Thickness Épaisseur Dicke		± 0,5 (**)	± 0,5 (**)	± 5 (**)	± 0,5 (**)
	Rettilineità degli spigoli Straightness of sides Rectitude des bords Geradheit der kanten		n.a. (***)	± 0,75 (***)	± 0,5 (***)	± 1,5 (***)
	Ortogonalità Squareness Rectangularité Rechtwinkligkeit		n.a. (****)	± 0,75 (****)	± 0,5 (****)	± 2,0 (****)
	Planarità Planarity Planéité de surface Ebenflächigkeit		c.c. / n.a e.c. / n.a w. / n.a	c.c. ± 0,75 e.c. ± 0,75 w. ± 0,75	c.c. ± 0,5 e.c. ± 0,5 w. ± 0,5	c.c. ± 2,0 e.c. ± 2,0 w. ± 2,0

(*) Deviazione ammissibile, in % oppure mm, della dimensione media di ogni piastrella (2 oppure 4 lati) dalla dimensione di fabbricazione (W).
(*) The permissible deviation, in % or mm, of the average size for each tile (2 or 4 sides) from work size (W).
(*) Écart admissible, en % ou en mm, de la taille moyenne de chaque carreau (2 ou 4 faces) par rapport à la dimension de fabrication (W).
(*) Zulässige Abweichung der durchschnittlichen Größe jeder Fliese (2 oder 4 Seiten) in % oder mm vom Herstellungsmaß (W).

(**) Deviazione ammissibile, in % oppure mm, dello spessore medio di ogni piastrella dallo spessore riportato nella dimensione di fabbricazione (W).
(**) The permissible deviation, in % or mm, of the average thickness for each tile from the work size (W).
(**) Écart admissible, en % ou en mm, de l'épaisseur moyenne de chaque carreau par rapport à l'épaisseur indiquée dans la dimension de fabrication (W).
(**) Zulässige Abweichung der durchschnittlichen Dicke jeder Fliese in % oder mm von der in der Herstellungsabmessung (W) angegebenen Dicke.

(***) Deviazione massima ammissibile di rettilineità, in % oppure mm, in rapporto alle dimensioni di fabbricazione (W) corrispondenti.
(***) The maximum permissible deviation from straightness, in % or mm, related to the corresponding work sizes (W).
(***) Écart de rectitude maximum admissible, en % ou en mm, par rapport aux dimensions de fabrication (W) correspondantes.
(***) Maximal zulässige Geradheitsabweichung in % oder mm in Bezug auf die entsprechenden Fertigungsabmessungen (W).

(****) Deviazione massima ammissibile di ortogonalità, in % oppure in mm, in rapporto alle dimensioni di fabbricazione (W) corrispondenti.
(****) The maximum permissible deviation from rectangularity, in % or mm, related to the corresponding work size (W).
(****) Écart d'orthogonalité maximum admissible, en % ou en mm, par rapport aux dimensions de fabrication (W) correspondantes.
(****) Maximal zulässige Abweichung der Orthogonalität in % oder in mm in Bezug auf die entsprechenden Herstellungsabmessungen (W).

c.c. Deviazione massima ammissibile della curvatura del centro, in % oppure mm, in rapporto alla diagonale calcolata secondo le dimensioni di fabbricazione (W).
c.c. The maximum permissible deviation from centre curvature, in % or mm, related to the diagonal calculated from the work sizes (W).
c.c. Écart maximum admissible de la courbure du coin, en % ou en mm, par rapport aux dimensions de fabrication (W).
c.c. Maximal zulässige Abweichung der Krümmung von der Ecke in % oder mm von den Herstellungsmaßen (W).

e.c. Deviazione massima ammissibile della curvatura dello spigolo, in % oppure mm, in rapporto alle dimensioni di fabbricazione (W).
e.c. The maximum permissible deviation from edge curvature, in % or mm, related to the corresponding work sizes (W).
e.c. Écart maximum admissible de la courbure du coin, en % ou en mm, par rapport à la diagonale calculée en fonction des dimensions de fabrication (W).
e.c. Maximal zulässige Abweichung der Krümmung der Ecke in % oder mm von den Herstellungsmaßen (W).

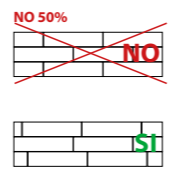
w. Deviazione massima ammissibile dello svergolamento, in % o mm, in rapporto alla diagonale calcolata secondo le dimensioni di fabbricazione (W).
w. The maximum permissible deviation from warp, in % or mm, related to diagonal calculated from the work size (W).
w. Écart de gauchissement maximum admissible, en % ou en mm, par rapport à la diagonale calculé en fonction des dimensions de fabrication (W).
w. Maximal zulässige Verzugsabweichung in % oder mm in Bezug auf die Diagonale, berechnet nach den Abmessungen von Herstellung (W).

Le caratteristiche tecniche indicate nei cataloghi di linea e nel Catalogo Generale, e in qualsiasi documento di promozione commerciale di ITALCER S.p.A., hanno lo scopo di dare un'indicazione dei valori riscontrati nei vari lotti e nelle varie tonalità del prodotto, pertanto differenze rispetto a tali valori indicativi non possono essere oggetto di contestazione.

All technical features stated in leaflets, in master brochure and in merchandising of ITALCER S.p.A. are meant to be an indication of an average of figures recorded within a span determined by international law) in several production runs, therefore a slight discrepancy in quality figures of a certain batch in relation to these figures cannot be considered a production failure.

Les caractéristiques techniques mentionnées dans les catalogues de ligne et dans le catalogue général et dans tous les documents de promotion commerciale de ITALCER S.p.A. ont le but de fournir une indication des valeurs rencontrés dans les différents lots et dans les différentes tonalités du produit et donc les différences par rapport à ces valeurs indicatives ne peuvent pas faire l'objet des réclamations.

Die in den Linienkatalogen und im Gesamtkatalog sowie in den Werbedokumenten für ITALCER S.p.A. angegebenen technischen Merkmale sollen einen Hinweis auf die Werte geben, die in den verschiedenen Chargen und in den verschiedenen Produktfarben gefunden wurden, weshalb sich diese unterscheiden Richtwerte können nicht bestritten werden.



NO 50%

SI

Per i formati rettangolari, si consiglia una sfalsatura tra ciascuna piastrella non superiore a 6-10 cm
Fuga consigliata: **minimo 3 mm. per prodotti non rettificati; minimo 2 mm. per prodotti rettificati**
When laying, you are recommended not to stagger the rectangular tiles by more than 6-10 cm (2"-4")
Suggested joint: 3 mm minimum for non-rectified products; 2 mm minimum for rectified products.
Pose conseillée avec un décalage entre chaque listel non supérieur à environ 6-10 cm
Joint conseillée: 3 mm minimum pour produits non rectifiés; 2 mm minimum pour produits rectifiés.
Wir empfehlen eine Verlegung mit einer Verschiebung zwischen den einzelnen Leisten von nicht mehr als ungefähr 6-10 cm
Empfohlene Fuge: mindestens 3 mm für nicht rechtwinklig geschliffene Produkte; mindestens 2 mm für rechtwinklig geschliffene Produkte.

SP PRODUZIONE SPECIALE: QUESTI ARTICOLI NECESSITANO DI UNA QUANTITÀ MINIMA E SONO PRODOTTI IN 3/4 SETTIMANE.
SPECIAL PRODUCTION: A MINIMUM QUANTITY IS REQUIRED FOR THE ORDER OF SPECIAL TRIMS ON REQUEST. PIECES WILL BE PRODUCED IN 3/4 WEEKS.
PRODUCTION SPECIALE: LES PIÈCES SPÉCIALES SUR DEMANDE COMPORTENT UNE QUALITÉ MINIMUM OBLIGATOIRE. ELLES SONT PRODUITES DANS UN DÉLAI DE 3/4 SEMAINES.
SONDERFERTIGUNG: DIE NACH WUNSCH GEFERTIGTEN FORMTEILE BENÖTIGEN EINE MINDESTQUALITÄT UND WERDEN IN 3-4 WOCHEN

• Tutti i pezzi speciali e decori sono acquistabili solo a confezioni intere - All special trims and decors can be purchased as a whole - Achat des pieces speciales seulement par boîtes completes - Las piezas especiales y las decoraciones podrán adquirirse sólo en cajas enteras. - Formstuecke und Dekore werden nur in vollen Kartons geliefert

Indice di variazione

Variation index



Piastrella uniforme
 Tiles with uniform appearance
 Carreaux avec une apparence uniforme
 Einheitliche Fliese



Piastrella con leggera variazione di tono e grafica
 Tiles with slight shade and graphic variation
 Carreaux avec faible différence de nuance et structure
 Fliese mit einer leichten Abänderung des tons und grafik



Piastrella con discreta variazione di tono e grafica
 Tiles with moderate shade and graphic variation
 Carreaux avec moderate différence de nuance et structure
 Fliese mit einer moderat Abänderung des tons und grafik



Piastrella con notevole variazione di tono e grafica
 Tiles with huge variation of shade and graphic
 Carreaux avec une considerable difference de nuance et structure
 Fliese mit einer beträchtlich Abänderung des tons und der grafik.

Legenda

Legend



Piastrelle indicate per pavimenti
 Tiles specifically used for floors
 Carreaux pour carrelages de sol
 Bodenfliesen



Piastrelle particolarmente indicate per l'esterno
 Tiles especially suitable for outdoor applications
 Carreaux particulièrement indiqués pour application à l'extérieur
 Besonders für Aussenbereiche geeignete Fliesen



Piastrelle indicate per rivestimenti interni
 Tiles specifically used for wall coverings
 Carreaux pour faïences
 Wandfliesen für den Innenbereich



Piastrelle indicate per luoghi pubblici a traffico leggero
 Tiles suitable for low traffic public and commercial areas
 Carreaux recommandés pour lieux publics et commerciaux à piétinement léger
 Für Bodenbeläge in Bereichen mit gewöhnlicher Begehungsfrequenz und Schleifschmutz



Piastrelle indicate per abitazioni residenziali
 Tiles for dwelling houses
 Carreaux pour habitations résidentielles
 Fliesen für den Wohnbereich



Piastrelle indicate per luoghi pubblici a traffico pesante
 Tiles suitable for heavy traffic public and commercial areas
 Carreaux recommandés pour lieux publics et commerciaux à piétinement lourd
 Fliesen für Bereiche, die starker Begehung ausgesetzt sind

LAYING AND CLEANING RECOMMENDATIONS FOR CERAMICA RONDINE CERAMIC PRODUCTS

Introduction

Standard UNI EN 14411 – Ceramic tiles: Definition, Classification, Characteristics and Marking, defines and provides the marking terms, requirements and criteria for high quality ceramic tiles. Rondine S.p.A. continually tests all its tiles in accredited workshops, in accordance with the aforementioned standard. Moreover, internal quality control procedures are implemented on an ongoing basis.

Laying

Before laying at the site, the tiler should check the shade, size, and choice of material, whereas when laying the tiler should always use tiles from several boxes to obtain the ideal colour mix. The tiler should also check the product for any obvious flaws before laying, which would not be covered by the guarantee if pointed out after laying.

The tiler should use adhesives which are suitable for the various types of use, and follow the instructions on the packaging. The surface to be tiled should be checked to ensure it is stable, dry and ready for tiling, and is not excessively hot or cold. The adhesive should be applied professionally such that there are no gaps between the tile and the surface.

The tiler should be careful not to mark the material on the outer surface with pencils (graphite) or permanent markers, especially on products with smooth, glazed or lapped surfaces. Appropriate diamond tile cutters and special equipment should be used for the cutting and outlining operations requested by the Works Manager, especially with porcelain stoneware. The dimension of the tile joint may vary depending on the format used, orthogonal or diagonal laying angles, and final use. A minimum tile joint of 3 mm is recommended for non-rectified products and a minimum joint of 2 mm for rectified products. Laying rectangular formats in a staggered pattern requires tiles to be staggered by 6 cm, but never more than 10 cm. (Fig.1). In large rooms expansion joints must be positioned with regularity, whereas in small rooms it is sufficient to leave a slight gap between the tiles and perimeter walls, which are then covered with skirting.

Grouting and cleaning after laying

Fillers or mortar coloured with pigments should only be used after carrying out an initial test. For porcelain stoneware surfaces which are smooth, glazed or lapped, mortar or fillers which are contrast coloured (white tiles and anthracite, red grouting etc.) cannot be used due to the microporosity caused by the abrasive action of the cutter during processing.

With the use of cement surfacers after grouting the tiles, with the grout still fresh, any excess grout should be removed immediately with a sponge and plenty water.

A few days after laying, clean thoroughly with buffered acids to completely remove and dissolve any residue. It is also important to rinse well until the wash water runs clean. Liquid extractors are useful for removing dirty wash water, which avoids moving it from one place to another. When work has been completed the tiler should wash the floors with a water and buffered acid solution, to avoid the insufficient or late removal of grout residue leaving marks which may be difficult to remove.

Rondine recommends FILA Deterdek for this operation (follow the recommendations on the container for dilution percentages closely), which is an acid descaling agent that does not give off harmful fumes and combines the descaling action with effective cleaning.

For special areas of application, if waterproof grouting is required, epoxy mortar can be used. Follow the manufacturer's instructions on the packaging exactly and adhere to the procedures for use. When using these products, always consult expert, qualified tilers, as the incorrect application of epoxy mortars could irreversibly compromise the colour and appearance of the tiles.

The use of detergents (anti-corrosive products) which contain hydrofluoric acid could permanently damage the surface of any type of tile. It should be noted that more than 90% of the problems which arise on site are due to incorrect, or even non-existent, washing after laying. Appropriate washing after laying removes laying residue (mortar, adhesive, various types of dirt from the work site) and any remaining surface dirt.

Standard maintenance

For floors with smooth surfaces we recommend cleaning daily with Fila Cleaner (adhere to the recommended dilution percentages on the container), and treat regularly with an anti-stain treatment to protect the tiles from damage caused by markers, ink, rust or other damaging products. We recommend the use of FILA products for the standard maintenance of Rondine tiles. For further information on these products visit www.filachim.com.



A company part of:



UNI EN ISO 9001:2015
 UNI EN ISO 14001:2015
 UNI CEI EN ISO 50001:2011

SISTEMI DI GESTIONE
 CERTIFICATI

52%
 Ceramica Rondine

Ceramics of Italy



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