

 **BRICK**
GRES GENERATION

BRISTON

CERAMICA RONDINE

 CERAMICA
Rondine



charcoal



■ M393

J85880
6x25 (2 1/3"x10")

72 6x25

GRAFICHE DIVERSE

DIFFERENT PATTERNS
DIFFÉRENTS MOTIFS
VERSCHIEDENE MUSTER

charcoal sviluppo grafico 6x25 (2 1/3"x10")





fog



■ M393

J85881
6x25 (2 1/3"x10")

72 6x25

GRAFICHE DIVERSE

DIFFERENT PATTERNS
DIFFÉRENTS MOTIFS
VERSCHIEDENE MUSTER

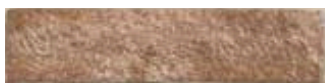
Briston Fog

fog sviluppo grafico 6x25 (2 1/3"x10")





beige



■ M393

J85878
6x25 (2 1/3"x10")

72 6x25

GRAFICHE DIVERSE

DIFFERENT PATTERNS

DIFFÉRENTS MOTIFS

VERSCHIEDENE MUSTER

Briston Beige

beige sviluppo grafico 6x25 (2 1/3"x10")





u m b e r



■ M393

J85671
6x25 (2 1/3"x10")

72 6x25

GRAFICHE DIVERSE






DIFFERENT PATTERNS
DIFFÉRENTS MOTIFS
VERSCHIEDENE MUSTER

u m b e r sviluppo grafico 6x25 (2 1/3"x10")



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 PRESCRIPTE PAR LES NORMES NORMVORGABE					
 <p>Lunghezza e larghezza <i>Length and width</i> <i>Longueur et largeur</i> <i>Länge und Breite</i></p>	 <p>Spessore <i>Thickness</i> <i>Épaisseur</i> <i>Dicke</i></p>	 <p>Rettilinearità degli spigoli <i>Straightness of sides</i> <i>Rectitude des bords</i> <i>Geradheit der kanten</i></p>	 <p>Ortogonalità <i>Squareness</i> <i>Rectangularité</i> <i>Rechtwinkligkeit</i></p>	 <p>Planarità <i>Planarity</i> <i>Planéité de surface</i> <i>Ebenflächigkeit</i></p>	ISO 10545-2			
					N < 7 cm	7 cm ≤ N < 15 cm	N ≥ 15 cm	
					(mm)	(mm)	(mm)	(mm)
					± 0,5 (*)	± 0,9 (*)	± 0,6 (*)	± 2,0 (*)
					± 0,5 (*)	± 0,5 (*)	± 0,5 (*)	± 0,5 (*)
n.a. (***)	± 0,75 (***)	± 0,5 (***)	± 1,5 (***)					
n.a. (****)	± 0,75 (****)	± 0,5 (****)	± 2,0 (****)					
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 rettilinearità, 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 maximum admissible, en % ou en mm, par rapport aux dimensions de fabrication (W) correspondantes.

(****) Deviazione massima ammissibile di ortogonalità, in % oppure mm, in rapporto alle dimensioni di fabbricazione (W) corrispondenti.
(****) The maximum permissible deviation from orthogonality, 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 diagonal calculated from the work sizes (W).
c.c. Écart maximum admissible de la courbure du centre, en % ou en mm, par rapport à la diagonale calculée en fonction des dimensions de fabrication (W).
c.c. Maximal zulässige Abweichung der Krümmung des Mittelpunkts in % oder mm in Bezug auf die Diagonale, berechnet nach 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 aux 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 sgocciolamento, in % o mm, in rapporto alle dimensioni di fabbricazione (W).
w. The maximum permissible deviation from warpage, 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 calculée 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).

(*) 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).

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 indications 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 Lineinkatalogen 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.

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 PRESCRIPTE PAR LES NORMES NORMVORGABE
 <p>Assorbimento d'acqua <i>Water Absorption</i> <i>Absorption d'eau</i> <i>Wasseraufnahme</i></p>	UNI EN ISO 10545-3	$\leq 0,5\%$
 <p>Resistenza chimica Chemical strength Resistance chimique</p> <p>Resistenza a basse/alte concentrazioni di acidi/alkali Resistenza ai prodotti chimici di uso domestico e agli additivi per piscina <i>Resistance to low/high concentrations of alkalis and acids</i> <i>Resistance to household chemical products and swimming pool additives</i> <i>Résistance à faibles/ fortes concentrations d'acides et d'alkalis</i> <i>Résistance aux produits chimiques à usage domestique et aux additifs pour piscine</i> <i>Chemikalien beständigkeit und gegen haushaltschemikalien und badewasserzusätze</i></p>	UNI EN ISO 10545-13	Classe dichiarata Classe minima B <i>Declared class</i> <i>Minimum class B</i> <i>Classe déclarée</i> <i>Minimum classification B</i> <i>Angegebenen Klasse</i> <i>Mindestklasse B</i>
 <p>Resistenza alla flessione <i>Bending Strength</i> <i>Résistance à la flexion</i> <i>Bruchlast</i></p>	UNI EN ISO 10545-4	$R \geq 35 \text{ N/mm}^2$ $S > 700 \text{ N}$ (spessore < 7,5 mm) $S > 1300 \text{ N}$ (spessore $\geq 7,5 \text{ mm}$)
 <p>Resistenza al gelo <i>Frost resistance</i> <i>Résistance au gel</i> <i>Frostbeständigkeit</i></p>	UNI EN ISO 10545-12	Nessun campione deve presentare rotture o alterazioni apprezzabili della superficie. <i>Samples must not show alterations on the surface.</i> <i>Les échantillons ne doivent pas présenter de ruptures ou d'altérations considérables sur la surface.</i> <i>Die Muster nussen keine Bruch oder Schäden auf dem Oberfläche presentieren.</i>
 <p>Durezza di Mohs <i>Hardness in Mohs degrees</i> <i>Dureté de Mohs</i> <i>Ritzhärte nach Mohs</i></p>	UNI EN 101	$\geq 5^\circ$ Mohs
 <p>Resistenza alle macchie Stain resistant Resistance aux taches Fleckbeständigkeit</p>	UNI EN ISO 10545-14	Classe > 3 Class > 3 Classe > 3 Klasse > 3
 <p>Resistenza all'abrasione superficiale <i>Superficial abrasion resistance</i> <i>Resistance à la abrasion superficielle</i> <i>PEI Klassifizierung</i></p>	Classificazione Interna <i>Internal Classification System</i>	Classi di abrasione da I a V <i>Abrasion class from I to V</i> Classe d'abrasion de I à V Abriebklassen I bis V
 <p>Resistenza all'abrasione profonda <i>Deep abrasion resistance</i> <i>Résistance à l'abrasion profonde</i> <i>Tiefenverschleiß</i></p>	UNI EN ISO 10545-6	$\leq 175 \text{ mm}^3$
 <p>Resistenza allo scivolamento (coefficiente di attrito) <i>Slip resistance (coefficient of friction)</i> <i>Résistance au glissement (coefficient de friction)</i> <i>Rutschfestigkeit (Reibungskoeffizient)</i></p>	DIN 51130 DIN B.C.R.A. Rep. CEC/81 51097 Dcof ANSI A137.1:2012 BS 7976-2 (pendulum)	Valore dichiarato Declared value Valeur déclarée Wertangabe $\mu > 0,40$ $> 0,42$ 0-24 25-35 >36 Scivoloso Scivolosità moderata Basso rischio scivolamento Slippery Moderately slippery Low slipping risk Glissant Glissance modérée Risque de glissement faible Rutschig Großer Haftriebwert Sehr Großer Haftriebwert

**prima
before**

**dopo
after**

Per il rivestimento di pavimenti e pareti mediante formati con lato superiore a 60 cm, **Ceramica Rondine** raccomanda di affidarsi al distanziatore livellante proposto da **Raimondi: Levelling System** e **AndalSystem** che consente facilmente di:

- **Rendere perfettamente planare la superficie posata**
- **Mantenere la posizione desiderata di ogni piastrella**
- **Ridurre i tempi di posa**

I distanziatori livellanti per piastrelle, rappresentano un sistema che permette di ottenere pavimenti livellati con semplicità e rapidità.
Guarda il video dimostrativo sul canale Youtube di Ceramica Rondine: www.youtube.com/user/RondineGroup

Pour le revêtement de sols et murs à l'aide d'un carrelage dont un côté dépasse les 60 cm, **Ceramica Rondine** conseille d'utiliser les cales de nivellement proposées par **Raimondi: Levelling System** et **AndalSystem** qui permettent facilement de :

- **Niveler parfaitement la surface posée pour chaque carreau**
- **Conservier l'emplacement souhaité**
- **Réduire le temps de pose**

Les cales de nivellement pour carreaux permettent d'obtenir des sols nivelés en toute simplicité et avec rapidité.
Regardez la vidéo de démonstration sur la chaîne Youtube de Ceramica Rondine: www.youtube.com/user/RondineGroup

Zur Verkleidung von Fußböden und Wänden mit Formaten, deren obere Seite 60 cm misst, empfiehlt **Ceramica Rondine** die Nutzung von nivellierenden Abstandshaltern von **Raimondi: Levelling System** und **AndalSystem** ist es möglich:

- **die verlegte Oberfläche perfekt eben zu machen.**
- **die gewünschte Position jeder Fliese beizubehalten.**
- **die Verlegzeiten zu reduzieren.**

Die nivellierenden Abstandshalter für Fliesen stellen ein einfaches und schnelles System dar, nivellierte Fußböden zu verlegen.
Sehen Sie sich das Demo-Video auf dem Youtube-Kanal von Ceramica Rondine an: www.youtube.com/user/RondineGroup

NO 50%

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 rechteckig geschliffene Produkte; mindestens 2 mm für rechteckig geschliffene Produkte.

SP

PRODUZIONE SPECIALE:
SPECIAL PRODUCTION:
PRODUCTION SPÉCIALE:
SONDERFERTIGUNG:

QUESTI ARTICOLI NECESSITANO DI UNA QUANTITÀ MINIMA E SONO PRODOTTI IN 3/4 SETTIMANE.
MINIMUM QUANTITY REQUIRED FOR THE ORDER OF SPECIAL TRIMS OR SPECIAL PRODUCTS WILL BE PRODUCED IN 3 WEEKS.
LES PIÈCES SPÉCIALES SUR DEMANDE COMPORTENT UNE QUALITÉ MINIMUM OBLIGATOIRE. ELLES SONT PRODUITES DANS UN DÉLAI DE 3/4 SEMAINES.
DIE NACH WUNSCH GEFERTIGTEN FORMTEILE BENÖTIGEN EINE MINDESTQUANTITÄT UND WERDEN IN 3-4 WOCHE

* 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 boites completes - Las piezas especiales y las decoraciones podrán adquirirse sólo en cajas enteras. - Formstuecke und Dekore werden nur in vollen Kartons geliefert

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.

FORMATO SIZE	SPES. THICKN.	PZ/BOX	M ² /BOX	KG/M ²	BOX/PALLET	M ² /PALLET	KG/PALLET	CODICE PREZZO
6x25 2 1/8x10"	9,5 mm	32	0,58 *	16,9	100	58	980,2	M393

* Compresa fuga di 1 cm - 1 cm joint included



POSARE CON FUGA DI 1 CM
LAY WITH 1 CM JOINT
POSER AVEC UN JOINT DE 1 CM
MIT EINER 1 CM FUGE VERLEGEN



0,3%



A • HA • LA



OK



46 N/mm²



6



5

Charcoal



Classe IV



Classe V



Dcof: Wet 0,65
Pendulum:
Dry 55 • Wet 48



6x25
13x25



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



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



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 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 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



A company part of:



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



SISTEMI DI GESTIONE
 CERTIFICATI



Ceramica Rondine



Ceramics of Italy