

**CASSERO**

**APAVISA**

## The essence of contemporary concrete

**C**assero reinterprets exposed concrete through a contemporary and minimalist perspective. The collection stands out for its formal simplicity and visual balance. Its surfaces convey sobriety and order, creating a clean and timeless aesthetic. A proposal that finds beauty in the essence of the material.

**C**assero reinterpreta il cemento a vista con uno sguardo contemporaneo e minimalista. La collezione si distingue per semplicità formale ed equilibrio visivo. Le superfici trasmettono sobrietà e ordine. Una proposta che valorizza l'essenza del materiale.

**C**assero réinterprète le béton apparent avec une approche contemporaine et minimaliste. La collection se distingue par sa simplicité formelle et son équilibre visuel. Les surfaces expriment sobriété et ordre. Une proposition qui révèle la beauté de la matière brute.

**C**assero interpretiert Sichtbeton aus einer zeitgenössischen, minimalistischen Perspektive neu. Die Kollektion besticht durch formale Schlichtheit und visuelle Ausgewogenheit. Die Oberflächen vermitteln Ruhe und Ordnung. Eine Hommage an die Essenz des Materials.

**C**assero reinterpreta el hormigón visto desde una mirada contemporánea y minimalista. La colección destaca por su sencillez formal y su equilibrio visual. Sus superficies transmiten sobriedad y orden, aportando una estética limpia y atemporal. Una propuesta que encuentra belleza en la esencia del material.



CASSERO

Cassero Grey Natural 60x120



Mosaics 	SIZE / Formato		White	Grey	Anthracite
			Natural	Natural	Natural
	29,75x29,75 cm 11.71"x 11.71"	Mosaico 5x5	G-1616	G-1616	G-1616

Gradone 	SIZE / Formato		White	Grey	Anthracite
			Natural	Natural	Natural
	30x120	Gradone	G-693	G-693	G-693

Peldaño 	SIZE / Formato		White	Grey	Anthracite
			Natural	Natural	Natural
	30x120	Peldaño	G-323	G-323	G-323

Packing List	Real Size cm	Real Size "	Box/ Pallet	Pzs/ Box	M2/ Pallet	M2/ Box	SQF/ Pallet	SQF/ Box	Kg/ Pallet	Kg/ Box	Kg/ Piece
	60x120 (7 mm)	59,55x119,3	23.45"x46.97"	30	2	42,626	1,421	458,825	15,294	780	25,234

Technical Data	UNE EN 16165 A.B	UNE EN 16165 A.A	DCOF ANSI A 326.3	UNE EN 16165 A.C	UNE EN 16165 A.C+A.N.A
	Natural	<b>R10</b>	<b>B</b>	<b>&gt;0,42</b>	<b>&gt;36</b>

DIN 51130 - DIN 51097 - UNE-ENV 12633. - Test done in Cassero Grey Natural 60x60. Average test result value on January 2021. Consult specific product test result value before supplying. DIN 51130 - DIN 51097 - UNE-ENV 12633 - Prueba realizada sobre el producto Cassero Grey Natural 60x60. Valor de media a fecha de Enero de 2021. Consultar valor de un producto específico antes del suministro.

Shade Variations	White	Grey	Anthracite
Variations	V2	V2	V2

Faces	White	Grey	Anthracite
60x120	>10	<20	<20

Sizes

60x120



60x120 59.55x119.3 cm - 23.44"x46.97" **7 mm**  
Cassero White Natural **G-1304**



White

60x120 59.55x119.3 cm - 23.44"x46.97" **7 mm**  
Cassero Grey Natural **G-1304**



Grey

60x120 59.55x119.3 cm - 23.44"x46.97" **7 mm**  
Cassero Anthracite Natural **G-1304**



Anthracite

Finishes - Acabados

Natural



## CLEANING AND MAINTENANCE TIPS

**THE FIRST CLEANING “AFTER INSTALLATION”**

The most important cleaning operation is performed immediately after laying the tiles. This involves the complete removal of residues and dirt from the tile placement. An inadequate or late removal of this waste can create a cementitious layer on the tile capable of absorbing all forms of dirt. This may give the impression that the tile gets dirty when the actual problem resides in the surface film of dirt which was not removed immediately after laying. Once the grouting of the tiles is finished, it is important, while the grout is still wet, to carefully remove any excess material immediately. This can be done using a sponge and plenty of clean water, repeating this as many times as necessary. Do not perform the cleaning with metal tools, scrapers or abrasive pads. For stubborn stains, clean with alcohol and lukewarm water and rub with a clean cloth. If they do not disappear, check with the relevant technical department. Once the above mentioned washing is done, another washing should be carried out using basic or alkaline degreasing agents, as acid washing can leave stickiness on the pavement which could help retain dirt. In areas where water is calcareous, it is convenient to dry the surface, in order to prevent the deposition of carbonates which will reduce the surfaces' gleam.

**REGULAR MAINTENANCE**

Many available cleaning products for general use can be used with our products. For daily cleaning, one can use detergents or degreasing products diluted in warm water, following each product’s instructions. It is important that the cleaner does not have oil, animal fat, or soap base. These components may leave an invisible residue whilst absorbing dirt (lime stratifications detergent or residues). It is also important that the tile receives a thorough rinsing with clean water after the cleaning process is complete.The low water absorption and high standards met by all porcelain tiles ensure a product which is easy to maintain. Our products do not require the use of sealants or waxes. These superficial coatings can really affect the performance of the tile in a negative manner. It is important to note that hydrofluoric acid (HF) and derivatives can irreparably damage the tile.

The general steps for regular cleaning of our ceramic products can be summarized as follows:

- Remove any solid or liquid waste from the tile, sweeping with a soft bristle broom or vacuuming.
- Clean up liquid spills as soon as possible with lukewarm water.
- Apply the recommended amount and dilution of the cleaner for the tile (follow the cleaner manufacturer’s instructions). The wiper must remain in the tile a minimum period of 5 minutes.
- For unpolished tiles, scrub with a nylon sponge or soft bristle brush. A floor machine equipped with a nylon pad or bristle brush can be used for heavily soiled surfaces. For polished tiles, clean with a nonabrasive cloth.
- Remove the dirty cleaning solution and water with a vacuum cleaner or cloth. Rinse the porcelain tile with clean water and remove again with a vacuum cleaner, mop or towel. It is absolutely essential that all detergent residues are removed completely from the tile. Any remaining detergent that dries on the tiles surface can form a coating that can trap dirt and be very difficult to remove. The tile should be rinsed several times to remove all detergent residues.

During use, the cleaning of the tiles should be similar to window cleaning. Ammonia and even bleach type products can be employed, but both must be diluted in water.

In case of special stains and/or particularly resistant, it is advisable to use specific detergents according to the cleaners' manufacturer. Do not forget that removing any type of stain is easier when it is still fresh.

It is important to always do a pre-test the detergent products result on a small sample of the porcelain.

**TILES WITH METALLIC EFFECTS - PVD**

This type of tiles require following these recommended guidelines, shown below, for cleaning:

- In general, you can use any non-aggressive and neutral pH product.
- In general, we recommend the use of ammonia-based products (NH3) diluted in water, never directly on the piece.
- You cannot use chemically aggressive products.
- You cannot use products with hydrochloric acid (HCl). The remaining acid products should be used with caution in very diluted concentrations.
- Citric acid and other acidic food products leave stains if left too long to act on the tile. They must be removed as soon as possible.
- The use of powder products of abrasive action is not recommended.

### FIXING TIPS

**CARE TO BE TAKEN DURING THE CONSTRUCTION**

Our ceramic products can be considered as a final finish in the construction process, so it is advisable to be laid only when the rest of the building works are complete (structures, masonry, flooring, ceilings...); specially the flooring. This will minimize the collateral damage that sometimes occurs when the product is being placed too soon.When porcelain tiles are placed before the end of the construction, one must take special care to protect the piece until the works are finalized.

**PRE-FIXING ISSUES**

- Upon receiving porcelain tiles it is essential to check if the tone, size and quality meet the required standards in advance, as well as assuring the lack of any visible surface defects. In case of facing any problems, our technical team will be able to study these when informed before laying the product.
- One must choose the proper tools for laying ceramic products (serrated edged comb, rubber mallet, suction cups, spreaders and clamps for laying, jointing rubber float, ...)
- Mix pieces from different boxes.

**SUPPORT BASE PREPARATION**

The support base for wall or floor for the tiles must be stable, dry, flat and it must have the adequate consistency. This base must never be too hot nor too cold and should be clean. One must not forget to clean any dust, grease or oil leftovers to facilitate an optimal adhesion.It is convenient to use slightly rough support bases, altering any excessively smooth leveling layer, in order to ensure greater adherence.

**ADHESIVE CHOICE**

The type of adhesive will be determined by the water absorption of each type of tile. In our case, it is advisable to employ the technique of placing a thin layer of cement adhesive of type C2.For formats larger than 30x30cm, we recommend the double-layer-adhesive. This technique involves the appliace of adhesive on the support base as well as on the tile; this technique is strongly recommended for outdoors.The bonding material must be applied with serrated edged comb to achieve a homogeneous adhesive distribution throughout the laying surface, even in the corners of the tile. A non-uniform adhesive layer will cause tensions on the tile, which will create an “eyebrow” effect. It is advisable to follow the instructions of the adhesives manufacturer, particularly for different cement-based bonding materials.

**TILE INSTALLATION**

The previous handling of the tiles, especially the rectified, must be done with utmost care to avoid scratches or chipping of the tiles. During the fixing process, the surface shall not be marked by graphite materials (pencils) or permanent markers, especially in the case of polished products to avoid potential cleaning problems. In the placement of tiles the use of at least 2mm spreaders is advisable. For locked placement, it is advisable to fix at a distance from 1/3 of the piece, never at half of the piece. In large format porcelain pieces (over 60cm of any of its sides) it is convenient to use leveling clips to ensure the flatness of the pieces (such as the Raimondi leveling system, although there may be other manufacturers recommended in the market).Ç

**JOINTS AND GROUTS**

The main functions of installation joints are: to absorb deformations of the support, to increase surface adhesion between the parts and the bonding material, and to improve the impermeability of the surface. It is necessary to respect the indications given below:

- Structural joints:** the construction project already takes into account the existence of these joints in the floor coverings. These must also abide when covering the joint with plastic trims.
- Perimeter joints:** it is always appropriate to provide these joints that isolate the tile and bonding material from any structural movements, avoiding tensions with them. Perimeter joints are normally hidden by the skirting board or the tile itself; they must have a width of 5 to 10 mm, and may be empty or filled with deformable material.
- Expansion joints:** allow deformations due to thermal and hygroscopic variations between tiles between the bonding material and the support base. Usually designed with a width of 5-8 mm and surfaces from 25 m2 (in sections of 5x5 m2) indoor and surfaces from 9 m2 (in sections of 3x3 m2) outdoors. These joints must be well executed, this means that they must be flexible, waterproof, well bonded and must reach the base support.
- Installation joints:** those between tiles. Before grouting these must be empty, without any bonding materials. It is not recommended to fix any floor without joints, advising a minimum joint of 2-3 mm The grout used in installation joints must be applied with a rubber float. The market offers a wide range of grouts, which are suitable for each type of tile and temperature as specified by the manufacturer of the grout, in which the type of product to be used, colors and waiting time before grouting should be recommended.

Before grouting, it is advisable to test a small area of the part to determine whether the chosen grout affects or stains the surface of the piece. In this case, one should contact the grout manufacturer. Ask the manufacturer for a suitable cleaner for this type of grip material. A bonding material with a thin granulometry is desirable in order to avoid scratches on the tile during its placement.

## CONSEJOS DE COLOCACIÓN

**CUIDADOS A SEGUIR DURANTE LA CONSTRUCCIÓN**

Nuestros productos se pueden considerar acabados finales en la construcción, por ello es recomendable ser colocados sólo cuando el resto de los trabajos constructivos hayan finalizado (estructuras, mampostería, solados, techos, instalaciones,...) y en especial los productos porcelánicos para suelos. De este modo se minimizarán los daños que pueden experimentar el producto cerámico por haber sido colocados demasiado pronto. Cuando los productos porcelánicos son colocados antes de finalizar la construcción hay que tener especial cuidado para proteger la pieza hasta que se ponga en servicio normal de utilización.

**CUESTIONES PREVIAS A LA COLOCACIÓN**

•Al recibir los productos cerámicos es importante previamente comprobar  si el tono, calibre y calidad son los requeridos, así como la existencia de defectos superficiales visibles.

•Hay que elegir las herramientas y útiles adecuados para la colocación de los productos cerámicos (llana metálica dentada, maza de goma, ventosas, crucetas y grapas para la colocación, llana de goma para rejuntar, ...)

•Hay que mezclar piezas de varias cajas.

**PREPARACIÓN DEL SOPORTE**

El fondo o soporte para pared o suelo sobre el que se colocarán las baldosas debe estar estable, seco, nivelado o aplomado con la consistencia adecuada, no debiendo estar ni helado ni excesivamente caliente y limpio sin restos de polvo, grasa o aceite. Es conveniente disponer de soportes rugosos alterando los soportes excesivamente lisos o la propia capa de nivelación ligeramente para garantizar mayor adhesión.

**ELECCIÓN DEL ADHESIVO**

La elección del tipo de adhesivo vendrá determinada por la absorción del agua de cada tipo de baldosa. En nuestro caso, se aconseja emplear la técnica de colocación en capa fina con el uso de Adhesivos Cementosos tipo C2. Para grandes formatos superiores a 30x30cm, se recomienda la técnica de colocación de doble encolado, esto es, aplicar adhesivo sobre el soporte y en la baldosa, en especial en exteriores.

El material de agarre debe aplicarse  con una llana dentada para conseguir una distribución del adhesivo homogénea por toda la superficie de colocación incluso en las esquinas de la baldosa, presionando la baldosa sobre el adhesivo todavía fresco. De no ser uniforme la capa de adhesivo provocará tensiones en la baldosa que generan a la larga el efecto “ceja”. Es conveniente seguir las instrucciones  del fabricante de adhesivos, en especial  para los soportes diferentes de base cementosa.

**COLOCACIÓN DE LAS BALDOSAS**

La manipulación previa de las baldosas, en especial las rectificadas, ha de realizarse con el máximo cuidado, para evitar despuntados, rayas o desconchados en su superficie. Durante la colocación, no deberá marcarse la superficie de utilización del material con lápices (grafito) o rotuladores indelebles, especialmente en el caso de los productos pulidos para evitar posibles problemas de limpieza de los mismos. En la colocación de las baldosas se recomiendo el uso de crucetas de al menos 2 mm. En colocación trabada es aconsejable la colocación a una distancia de 1/3  de la pieza, nunca a la mitad de la pieza. En pavimentos de grandes formatos (mayores de 60 cm en alguno de sus lados) es conveniente el uso de grapas de colocación para garantizar la planitud de las piezas (se recomienda el modelo de la marca RAIMONDI, aunque puede haber otros fabricantes en el mercado).

**LAS JUNTAS Y REJUNTADOS**

Las principales funciones de las juntas de colocación son: absorber deformaciones del soporte, aumentar la superficie de adherencia entre las piezas y el material de agarre, y mejorar la impermeabilidad de la superficie. Es conveniente respetar las juntas que se indican a continuación:

•**Juntas estructurales:** el proyecto constructivo ya tiene prevista la existencia de estas juntas en el solado que se deben respetar también al colocar las baldosas y éstas se deben recubrir con materiales deformables.

•**Juntas perimetrales:** siempre es conveniente prever estas juntas que aíslan la baldosa y al adhesivo de los movimientos de otros elementos estructurales constructivos como paredes-suelos, pilares o puertas-ventanas, evitando tensiones con ello. Normalmente quedan ocultas por el rodapié o la propia baldosa,  deben tener una anchura de 5 a 10 mm, y pueden quedar vacías o rellenas de material deformable.

•**Juntas de dilatación:** permiten las deformaciones por variaciones térmicas e higroscópicas entre baldosas, adhesivo y soporte. Normalmente se diseñan con una anchura mínima de 5 a 8 mm y en superficies a partir de 25 m2 (en paños de 5x5 m2) en interiores y en superficies a partir de 9 m2 (en paños de 3x3 m2) en exteriores. Estas juntas deben estar bien ejecutadas, esto es, ser flexibles, impermeables, bien adheridas y llegar hasta el soporte base.

•**Juntas de colocación:** son las existentes entre baldosa y baldosa. Antes del rejuntado estas juntas deben estar vacías, por tanto sin materiales de agarre de la construcción. Se desaconseja una colocación a junta unida o a “testa” aconsejándose una junta mínima de 2-3 mm.

El material de rejuntado que se utiliza en las juntas de colocación se debe aplicar con una llana de goma. En el mercado existe una amplia gama de materiales de rejuntado, que se adecua a cada tipo de baldosas y ambiente según especificaciones del fabricante del material de rejuntado en las que se debe recomendar el tipo de producto a emplear, colores y tiempo de espera  hasta el comienzo del rejuntado. Antes del rejuntado, es conveniente probar en un área pequeña de la pieza para determinar si la lechada elegida decolora o mancha la superficie de la pieza, en cuyo caso hay que contactar con el fabricante del material de rejuntado. Pedirle al fabricante del rejunte un limpiador adecuado para este tipo de material de agarre. Es conveniente que la granulometría del material de rejuntado sea fina, para evitar posibles rayas en la baldosa en su colocación.



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