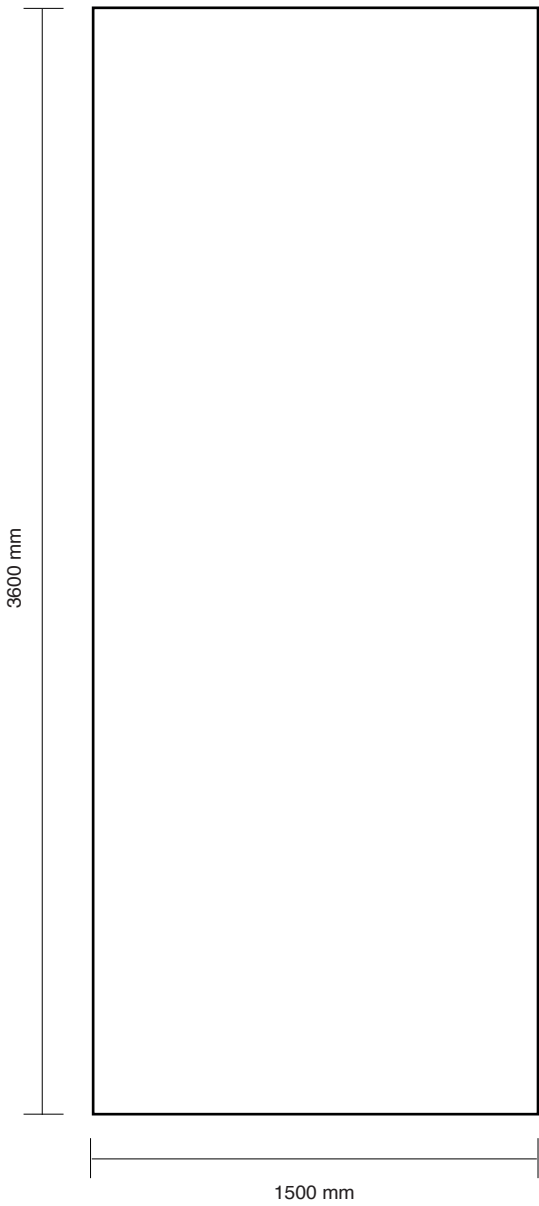




UHPC PLUS ARIA

General Data



Maximum panel dimensions

3600x1500 mm (5,4 m²)
141.7"x 59"(58.12 ft²)



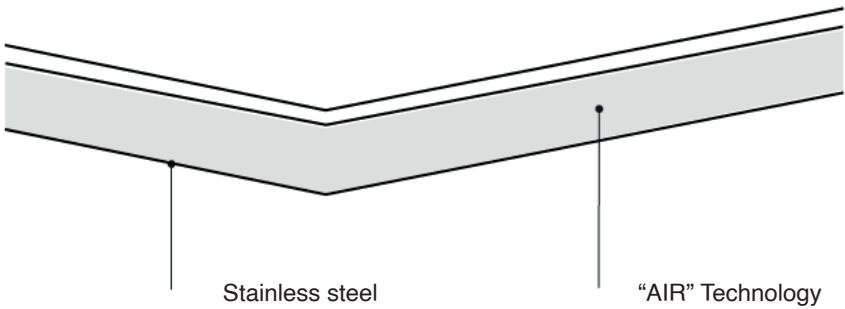
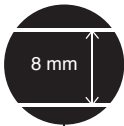
Weight
24kg/m²
4,9 lb/ft²



Panel Thickness
19mm
3/4"



UHPC Thickness
8mm
5/16"



PLAIN

The PLAIN line offers a wide range of colors and options for both exterior and interior facades. Special colors can be produced upon request to meet the needs of any project. Our production process involves mixing the color directly with the raw materials, unlike other types of cladding where the color is applied only superficially.

The iron oxide pigment applied to GammaStone's UHPC gives the material an authentic and natural finish, perfectly blending with the surrounding environment and harmonizing with landscapes.



Bianco



Crema



Grigio Fumo



Grigio Urbano



Giallo Imperiale



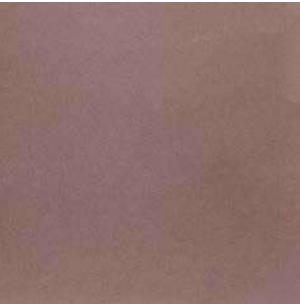
Verde Salvia



Terracotta



Rosso Mattone

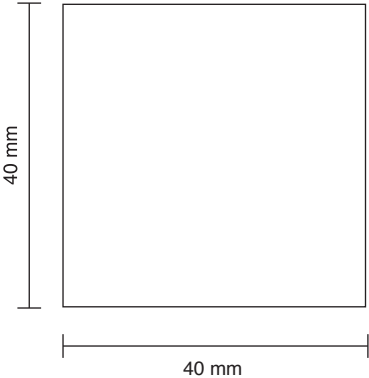


Marrone Gesso



Marrone Moka

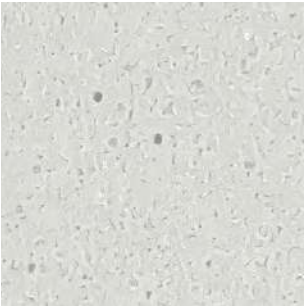
Reference Scale



STONE 2.0

The STONE 2.0 panels stand out for their use of fine granules, with a maximum diameter of 2 mm, which give the surface a refined and homogeneous appearance. The panel's base is designed to perfectly match the color of the granules, creating an elegant and modern chromatic balance.

Each color variation is carefully developed, ensuring an exclusive design that adapts to a wide range of architectural contexts.



Bianco Carrara



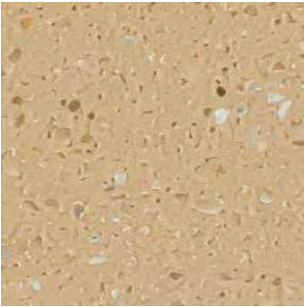
Bardiglio



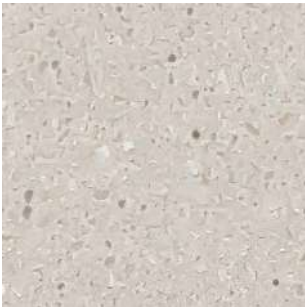
Grigio Carnico



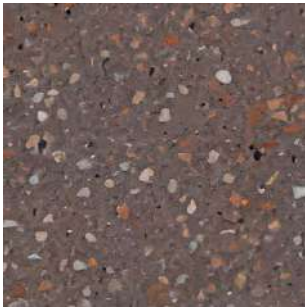
Nero Ebano



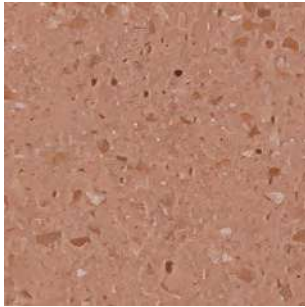
Giallo Siena



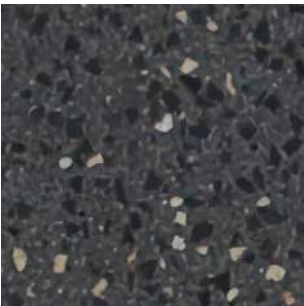
Botticino



Breccia Pernice



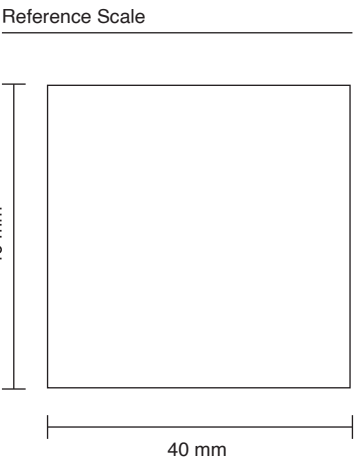
Rosso Verona



Nero Ebano/Giallo Mori



Cristallo



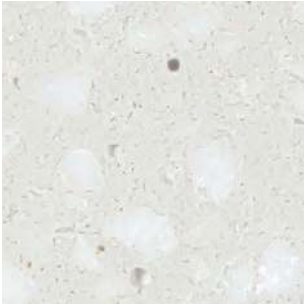
STONE 8.0

The STONE 8.0 panels are characterized by larger granules, with a maximum diameter of 8 mm, which provide a textured and bold surface appearance. The panel's base, in harmony with the granules, enhances the natural tones and creates a unique and sophisticated visual effect.

The various color combinations are the result of meticulous design research, conceived to elevate the most ambitious and distinctive projects.



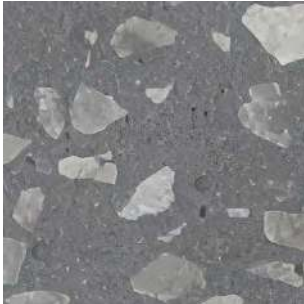
Bianco Thassos



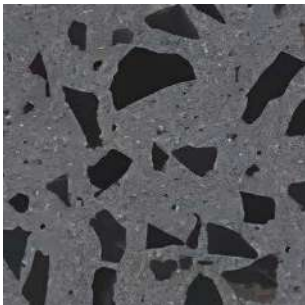
Bianco Carrara



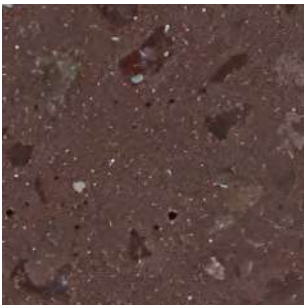
Botticino



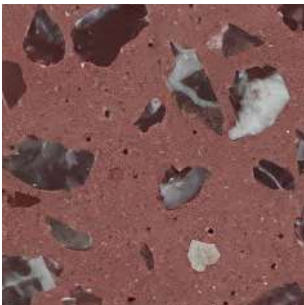
Grigio Cenere



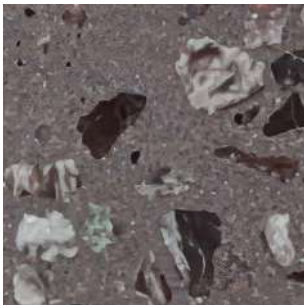
Nero Ebano



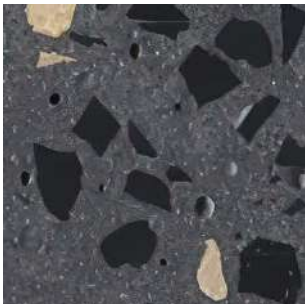
Porfido Marrone



Rouge Royal



Rosso Levante

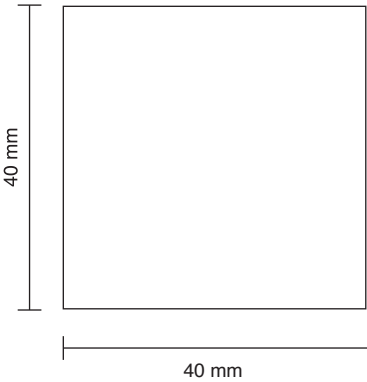


Nero Ebano/Giallo Mori



Verde Alpi

Reference Scale

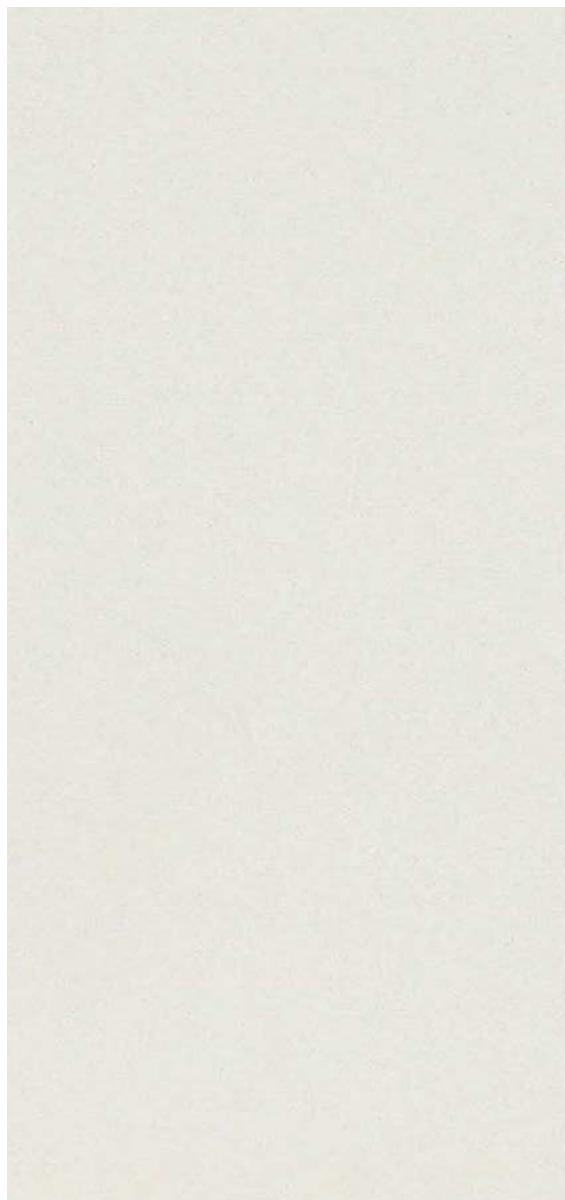


FINISHES

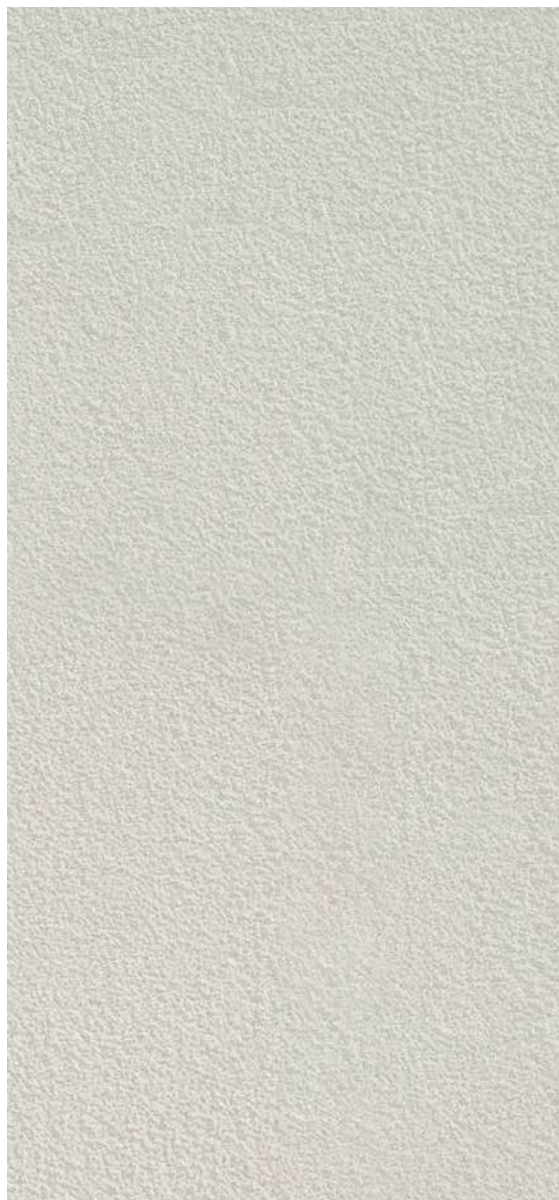
On all three panel types – PLAIN, STONE 2.0, and STONE 8.0 – two finishes can be applied: Honed and Bush-Hammered.

The Honed finish provides a smooth and uniform surface, ideal for a modern and elegant aesthetic. The Bush-Hammered finish, on the other hand, delivers a textured surface with a handcrafted effect that enhances the materiality of the panel.

Honed



Bush-Hammered



PANEL SPECIFICATION

PANNELLO UHPC

The facade cladding must be made of lightweight panels (such as GammaStone AIR or similar) consisting of a 8 mm thick outer layer of high-performance concrete reinforced with amorphous fibers, a structural core inserted between two fiberglass mats, and a 0.5 mm thick stainless steel plate.

Panel color: Choose color

Finish: Choose finish

Dimensions: Panels supplied according to the designer's specifications with maximum dimensions of 3600x1500 mm.

Thickness: 19 mm. Weight: 24 kg/m²

Monolithic mortar corner composed of mortar panels with beveled edges, assembled with mastic, laid on the back of an L-shaped mortar element and glued with structural silicone.

The panel has to have the minimum performance levels as follows:

UNI EN ISO 10545-3:2000 – Determination of water absorption: 7.2%

UNI EN ISO 10545-8:2014 – Determination of linear thermal expansion: 1.6

UNI EN 772-14:2003 – Determination of moisture movement: 0.04 ÷ 0.13 mm/m

UNI EN ISO 10545-4:2012 / UNI EN 12467:2016 – Determination of the breaking strength: 4.3 ÷ 6.2 N/mm² | 2.9 ÷ 3.9 N/mm²

UNI EN 12089:2013 – Determination of bending behavior: 4160 ÷ 5867 kPa

UNI EN 12467:2016 – Determination of frost/defrost resistance: No fault

UNI EN 12467:2016 – Determination of water absorption: Absence of water

UNI EN ISO 10545-9:2013 – Determination of resistance to thermal shock: No fault

Fire Resistance:

UNI 9177:2008 / UNI 8457:2010 / UNI 9174:2010 – Reaction to fire: Classe 1

UNI EN 13501-1:2009 / UNI EN 13823:2010 / UNI EN ISO 11925-2:2005 – Fire classification: B - s1, d0

Mechanical & Fire Testing:

ETAG 034-1:2012 – Wind depression load resistance: 4610 Pa

ASTM E 84 (UL 723) – Surface burning characteristics: Class A

ASTM E 136 – Behavior of materials at 750°C (1382°F): Non-combustible

CAN/ULC-S114 – Test for Non-Combustibility: Non-combustible

ASTM C297/C297M-16 – Standard Test Method for Flatwise Tensile Strength: 1.37 ± 0.05 MPa

NFPA – Fire test: Passed

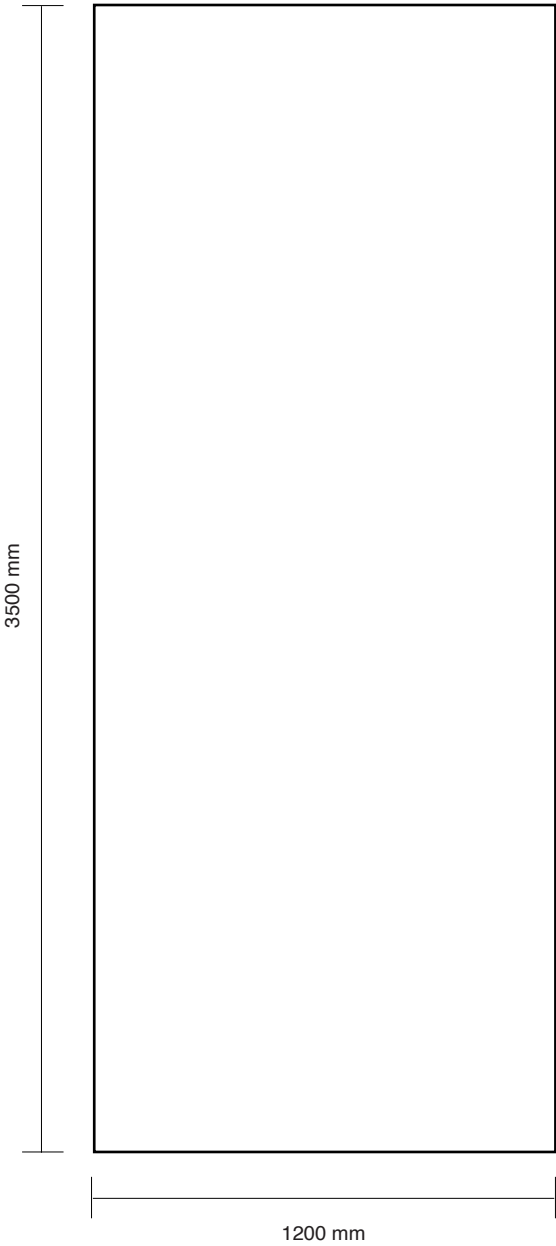
BS8414-1 – Fire test: Passed

Ultralight



ULTRATHIN PANELS

General Data



Maximum panel dimensions

3500x1200 mm (4,2 m²)
138"x48" (46 ft²)



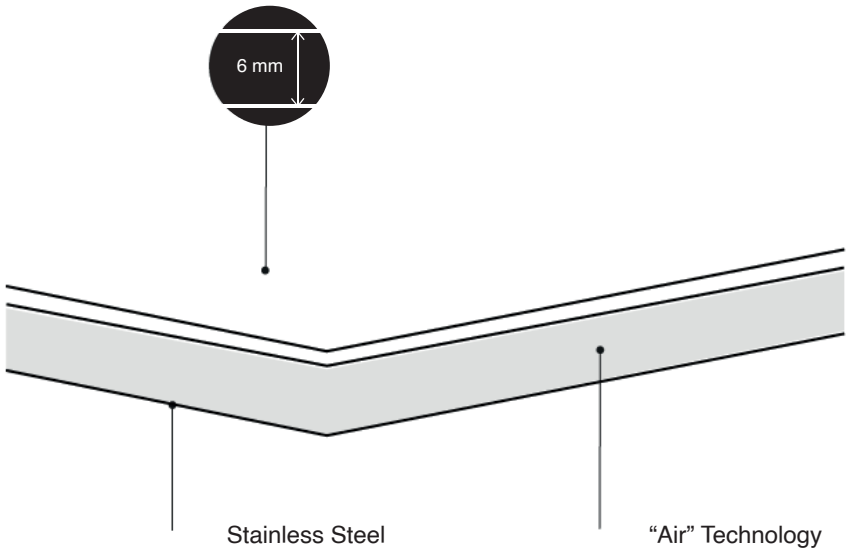
Weight
19kg/m²
3,8 lb/ft²



Panel Thickness
17mm
11/16"



UHPC Thickness
6mm
1/4"



Colors

GammaStone Ultralight is available in 8 selected colors with honed finish.

PLAIN



Bianco



Crema



Grigio Urbano



Giallo Imperiale



Verde Salvia



Terracotta

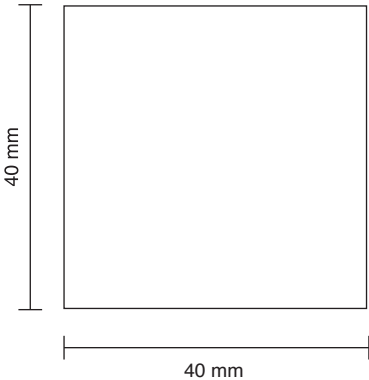


Rosso Mattone



Marrone Gesso

Reference Scale



PANEL SPECIFICATION

UHPC ULTRALIGHT PANEL

The façade cladding has to be made with light-weight panels (type GammaStone AIR or similar) made of a 6 mm thick external layer in high-performance concrete reinforced with amorphous fibers, a structural core inserted between two fiberglass mattings and a stainless steel plate having a thickness of 0,5 mm.

Panel color: Choose color

Finish: Honed

Sizes: Panels provided according to the designer's request with a maximum size of 3500x1200mm.

Thickness: 17 mm

Weight: 19 kg/sqm

Mortar monolithic corner composed of mortar slabs with beveled edges, assembled with mastic, put on the back of a blend L-element, and glued with structural silicone.

The panel has to have the minimum performance levels as follows:

UNI EN ISO 10545-3:2000 – Determination of water absorption: 7.2%

UNI EN ISO 10545-8:2014 – Determination of linear thermal expansion: 1.6

UNI EN 772-14:2003 – Determination of moisture movement: 0.04 ± 0.13 mm/m

UNI EN ISO 10545-4:2012 / UNI EN 12467:2016 – Determination of the breaking strength: $4.3 \div 6.2$ N/mm² | $2.9 \div 3.9$ N/mm²

UNI EN 12089:2013 – Determination of bending behavior: $4160 \div 5867$ kPa

UNI EN 12467:2016 – Determination of frost/defrost resistance: No fault

UNI EN 12467:2016 – Determination of water absorption: Absence of water

UNI EN ISO 10545-9:2013 – Determination of resistance to thermal shock: No fault

Fire Resistance:

UNI 9177:2008 / UNI 8457:2010 / UNI 9174:2010 – Reaction to fire: Classe 1

UNI EN 13501-1:2009 / UNI EN 13823:2010 / UNI EN ISO 11925-2:2005 – Fire classification: B - s1, d0

Mechanical & Fire Testing:

ETAG 034-1:2012 – Wind depression load resistance: 4610 Pa

ASTM E 84 (UL 723) – Surface burning characteristics: Class A

ASTM E 136 – Behavior of materials at 750°C (1382°F): Non-combustible

CAN/ULC-S114 – Test for Non-Combustibility: Non-combustible

ASTM C297/C297M-16 – Standard Test Method for Flatwise Tensile Strength: 1.37 ± 0.05 MPa

NFPA – Fire test: Passed

BS8414-1 – Fire test: Passed

Characteristics

GammaStone UHPC Plus AIR

GammaStone UHPC Plus AIR is an innovative Ultra High Performance Concrete (UHPC) panel designed to offer maximum structural strength while maintaining a significantly reduced weight. This solution allows architects to create façades with the aesthetic appeal of concrete without overloading the building structure, making it ideal even for high-rise constructions.

The panel consists of an 8 mm UHPC slab, a structural core inserted between two layers of fiberglass, and a rear reinforcement plate made of stainless steel. The total thickness of the panel is 19 mm, with a weight of only 24 kg/m². The maximum size available is 3600 x 1500 mm.

GammaStone UHPC Plus AIR combines lightness, durability, high mechanical performance, and excellent resistance to weathering, representing a cutting-edge solution for modern and high-performance façade claddings.

GammaStone UHPC Plus ULTRALIGHT

GammaStone UHPC Plus ULTRALIGHT, an evolution of UHPC Plus AIR, is a lightweight and high-performance solution that offers a cost-effective alternative to traditional aluminum or GFRC (Glass Fiber Reinforced Concrete) panels. Thanks to the use of Ultra High Performance Concrete (UHPC), this panel combines strength, durability, and lightness, meeting the most complex design requirements.

The panel's structure consists of an external 6 mm UHPC layer reinforced with amorphous fibers, a structural core inserted between two layers of fiberglass, and a 0.5 mm thick stainless steel rear plate.

The total thickness of the panel is 17 mm, with a weight of only 19 kg/m². The maximum available size is 3500 x 1200 mm.

GammaStone UHPC Plus ULTRALIGHT represents a state-of-the-art technical and aesthetic solution, ideal for architectural applications that require lightness, strength, and design flexibility.

What is UHPC?

UHPC (Ultra High Performance Concrete) is a specially engineered concrete designed for applications that require high performance, durability, and resistance to external agents.

Why choose UHPC for architectural applications?

GammaStone has developed a special UHPC cement matrix optimized for architectural façades. Designed for intensive outdoor use, this formulation ensures flexibility, durability, and resistance to all natural stresses such as freeze-thaw cycles, humidity, UV rays, and salt spray.

"Less is more": superior performance in thinner sections

Thanks to its exceptional mechanical properties, UHPC delivers performance more comparable to steel than to traditional concrete or GFRC, allowing the use of thinner sections without compromising strength. This results in lighter and more versatile panels.

Material Characteristics

GammaStone UHPC Plus AIR is the result of extensive research on selected aggregates and high-performance hydraulic binders, ensuring:

Extremely high flexural and compressive strength
Excellent impact resistance
Superior durability

Frost/Thaw Resistance

The compact molecular structure reduces water absorption, making UHPC highly resistant to freeze/thaw cycles, unlike traditional concrete, GFRC, or fiber cement. This ensures durability even in marine or highly humid environments.

Environmental Impact

GammaStone UHPC is produced according to the highest environmental standards. Moreover, thanks to the material's high strength, it is possible to reduce panel thickness and the amount of material used, lowering the overall environmental impact.

Mechanical Performance: Comparison with GFRC

Compared to GFRC panels, UHPC panels:

Are up to four times stronger
Can withstand higher loads and maintain integrity even under significant stress
Offer greater dimensional stability and resistance to thermal expansion

Colors and Finishes

GammaStone UHPC Plus AIR offers a wide range of aesthetic solutions for both exterior and interior façades, with an extensive selection of colors, textures, and finishes to meet any design requirement. Upon request, it is possible to create custom colors and finish combinations for complete compositional freedom.

Unlike other materials where coloring is applied superficially, GammaStone UHPC Plus AIR uses an integrated coloring process within the mixture, achieved by adding pigments during the raw material mixing phase. This method ensures:

- Long-lasting color durability
- Authentic and natural finishes, particularly effective in architectural contexts closely connected with the environment

The use of ferric oxides allows for elegant and natural shades, perfectly integrable with both urban and natural landscapes.

Color Stability and UV Resistance

The selected pigments are:

- Resistant to UV rays
- Insoluble in water, alkalis, and diluted acids

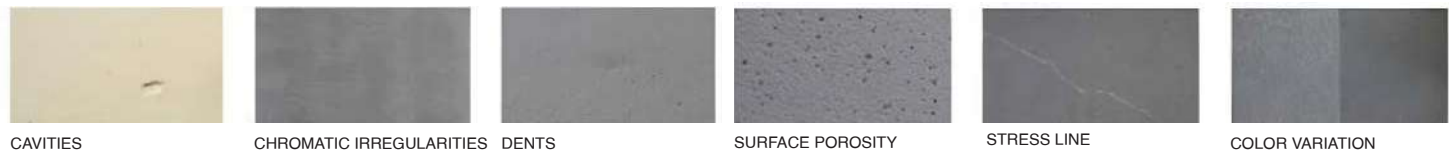
Although GammaStone guarantees high-quality finishes, it is important to consider that environmental factors (prolonged sun exposure, humidity, pollution, dust accumulation, etc.) may cause slight variations in the panel's surface appearance. These phenomena do not compromise the technical quality or durability of the product and should not be considered defects.

Color Uniformity and Production

The in-house production of UHPC allows GammaStone to offer great flexibility in color management, but it is important to note that small variations in shade may occur.

Material Acceptance Criteria

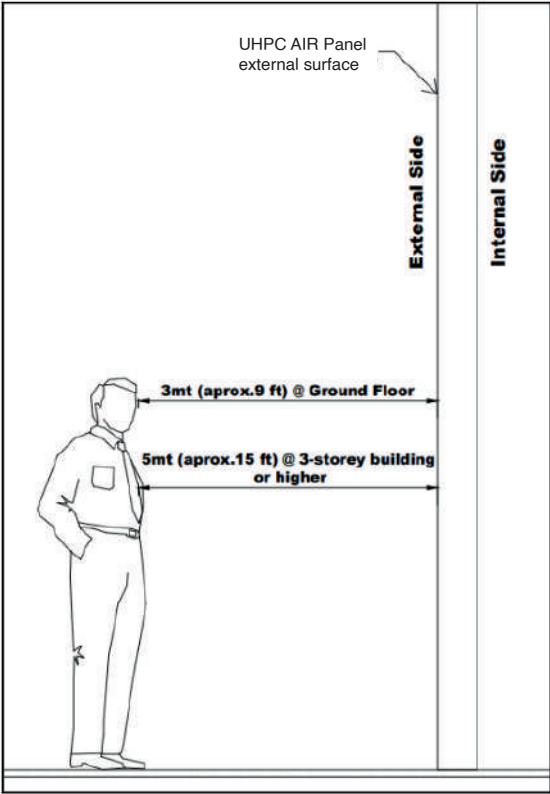
GammaStone UHPC panels, while meeting high-quality standards, may exhibit minor surface imperfections due to the nature of the material itself. Below are listed some of the aesthetic characteristics that do not compromise the mechanical, structural performance, or durability of the product.



Evaluation Distance and Acceptance Criteria

Surface Appearance Evaluation: The overall visual impression of the panels can only be assessed from an appropriate distance and under diffuse lighting conditions (not direct sunlight), with an angle of 90° ± 30° and at the following distances:

- 3 meters (approx. 9 feet): Surfaces or parts of surfaces intended to be viewed up close (ground level)
- 5 meters (approx. 15 feet): Surfaces or parts of surfaces intended to be viewed from a distance (equivalent to a three-story building height)



Notes on Samples

UHPC GammaStone samples are provided for indicative purposes only and cannot fully reproduce all the aesthetic and surface characteristics of the finished slabs or panels, as they represent only a small portion of a larger element. Large-format panels may exhibit optical effects or perceptual variations not detectable in small samples (for example, slight differences in tone, surface porosity, stress lines, and others as described above). Any visual variations, such as superficial micro-cracks or stress lines, are inherent characteristics of the material and do not in any way compromise the technical, structural, or durability performance of the UHPC GammaStone panels.

General and Geometrical tolerance

UHPC Plus Air - 8 mm

DATI TECNICI	EU	USA	PANEL STRUCTURE
Max. Panel Dimensions	3600x1500 mm (5,4 m²)	141.7"x59" (58.12 ft²)	
Total Panel Thickness	19 mm	≈ 3/4"	
UHPC Thickness	8 mm	≈ 5/16"	
Panel Weight	24 kg/m²	4.9 lb/sqft	



UHPC Ultralight - 6 mm

TECHNICAL DATA	EU	USA	PANEL STRUCTURE
Maximum Panel Dimensions	3500x1200 mm (4,2 m²)	138"x48" (46 ft²)	
Maximum Panel Thickness	17 mm	≈ 11/16"	
UHPC Thickness	6 mm	≈ 1/4"	
Panel Weight	19 kg/m²	3.8 lb/sqft	



dimensional deviations (dimensions in mm)

Up to 1.000	Over 1.000 Up to 2.000	Over 2.000 Up to 4.000
± 1	± 1.5	± 2

Dimensional deviations of assembled monolithic return valves (dimensions in mm for each assembled return valve)

Up to 500	Over 500 Up to 1.000	Over 1.000 Up to 2.000
-1 +2	-1 +2.5	-1.5 +3

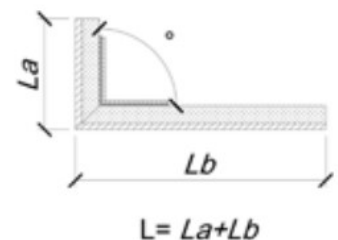
(dimensions in mm for each assembled return)

Up to 500	Over 500 Up to 1.000	Over 1.000 Up to 2.000
-1 +3	-1 +3.5	-1.5 +4

Edge tolerances for assembled monolithic profiles

The limit deviations refer to the total length in mm of the panels on the sides of the profile.

L Up to 500	L Over 500 Up to 1.000	L Over 1.000
± 1°	± 0°30'	± 0°20'



Edges for assembled monolithic returns

Dimension of the chamfer or radius of the monolithic edge

UHPC Plus	Max 5 mm
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The data reported in this technical data sheet are not binding and may be modified without notice.

Thickness

The thickness tolerance of the Air panel is closely related to the material used, as it is determined by the sum of the UHPC tolerance + the tolerance of the AIR panel laminated to the UHPC sheet.

Maximum AIR panel thickness deviation
(Deviation Σ in mm) $\pm 2,50$

Deviation from the diagonals of individual unassembled panels

Diagonal Dimension D1	Difference with Diagonal D2
Up to 1000 mm	2 mm
Between 1000 and 2000 mm	3 mm
Over 2000 mm	5 mm

ATTENTION: Any deviation from the above specifications requires a written agreement between both technical parties.

Technical data sheet

Fire test

Test	Description	Results
UNI 9177:2008 UNI 8457:2010 UNI 9174:2010	Reaction to Fire	Class 1
UNI EN 13501-1:2009 UNI EN 13823:2010 UNI EN ISO 11925-2:2005	Reaction to Fire Classification	B - s1, d0
ASTM E 84 (UL 723)	Surface Burning Characteristics	Class A
ASTM E 136	Material Behavior at 750°C (1382°F)	Non-combustible
CAN/ULC-S114 ASTM E1530:2006	Noncombustibility Test	Non-combustible
ASTM C297/C297M - 16	Standard Test Method for Flat Tensile Strength	1.37 $\pm$ 0.05 MPa
NFPA 285	Reaction to Fire Test	Passed
BS8414-1	Reaction to Fire Test	Passed

European Tests

Test	Description	Results
UNI EN ISO 10545-8:2014	Determination of linear thermal expansion	1.6
UNI EN 772-14:2003	Determination of moisture-induced movement	0.04 $\div$ 0.13 mm/m
UNI EN ISO 10545-4:2012 UNI EN 12467:2016	Determination of breaking strength	4.3 $\div$ 6.2 N/mm ² 2.9 $\div$ 3.9 N/mm ²
UNI EN 12089:2013	Determination of flexural behavior	4160 $\div$ 5867 kPa
UNI EN 12467:2016	Determination of freeze-thaw resistance	No Errors

no defects in The data reported in this technical data sheet are not binding and can be modified without any kind of notice.test

EUROPEAN TESTS

Test	Description	Result
UNI EN 12467:2016	Determination of water absorption	No water
UNI EN ISO 10545-9:2013	Determination of thermal shock resistance	No faults
ETAG 034-1:2012	Resistance to wind depression load	4610 Pa
MED 2014/90/EU	Determination of calorific value	Passed
MED 2014/90/EU	Determination of limited flame spread capacity	Passed

The tests refer to a GammaStone UHPC Plus AIR panel with 5 mm thick UHPC. The complete list of tests is available at gammastone.com.



The data reported in this technical data sheet are not binding and may be modified without notice.



UHPC PLUS AIR