

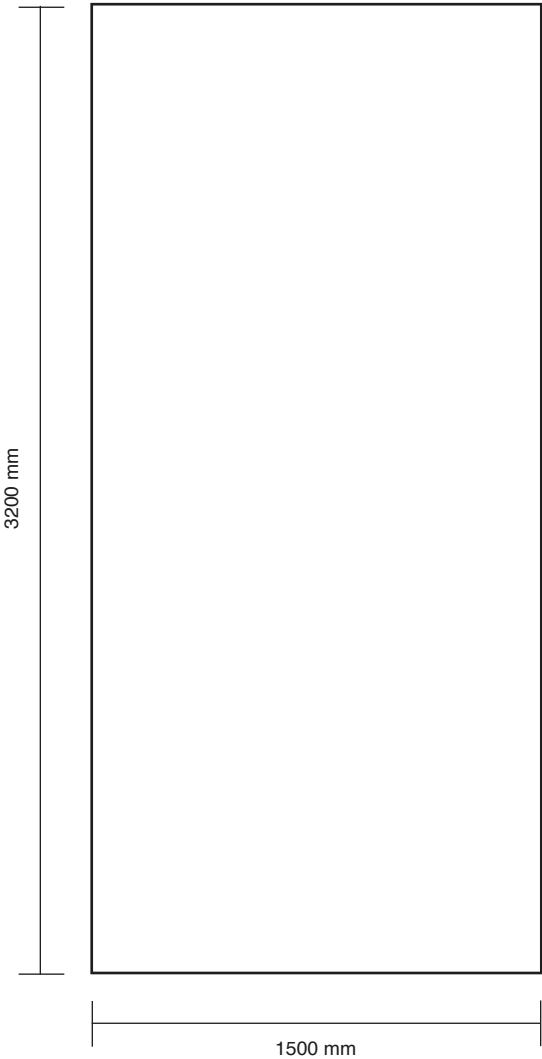
The GammaStone Natural AIR solution in natural stone allows the mechanical installation of large sized panels formed with marble, granite, limestone or travertine. It can be used to make beams, columns and any other architectural element with a monolithic result, creating the effect of one piece.

The available sizes depend on the block size, the maximum dimension is 3200x1500 mm



NATURAL AIR

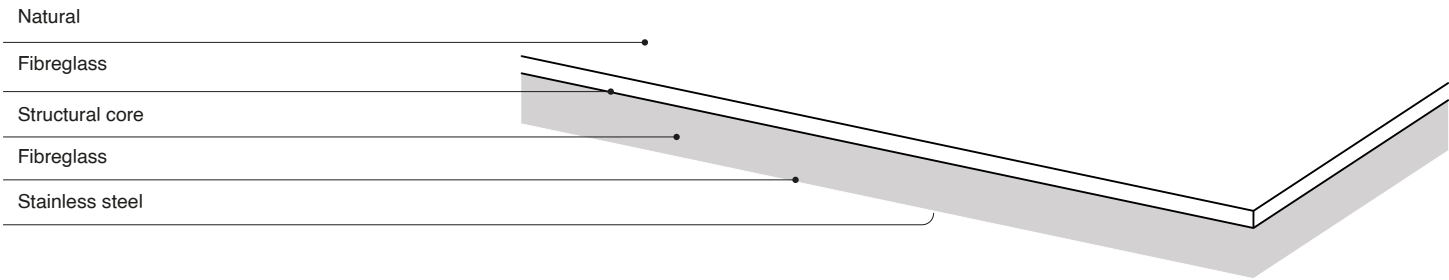
General Data



Max Panel Sizes

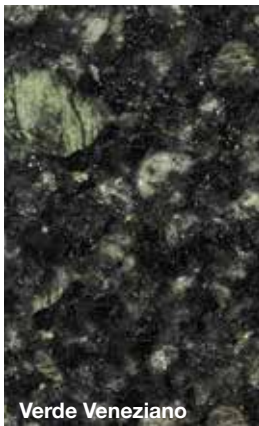
3200x1500 mm (4,8 m²)
126"x59" (52.42 ft²)

Panel Structure



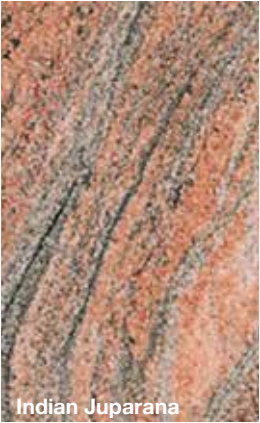
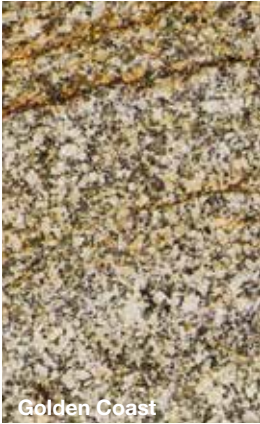
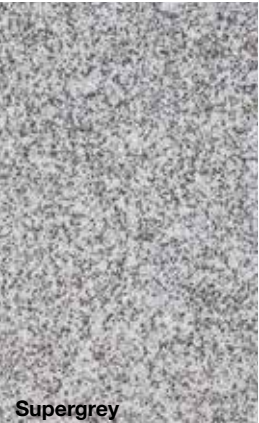
Material

Granite



Material

Granite



Material

Granite



Giallo S. Helena



Vyara



Cream Violet



Giallo Sf Real Gm



Wizard Green



Peacock Green



Verde Bahia Ubatuba



Verde Butterfly



Baltic Brown (Medio)



Giallo Venezia Florito



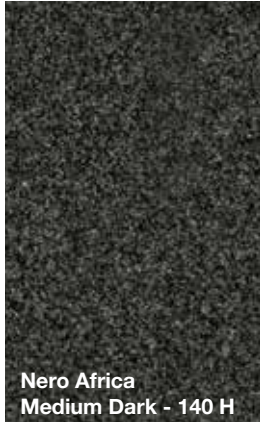
Aurora Bianca



Brandy Yellow



Giallo Antico



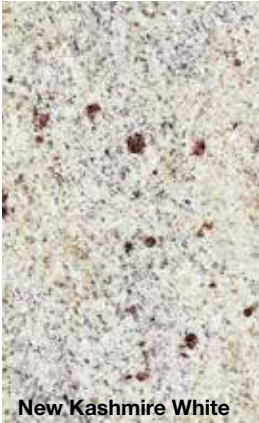
Nero Africa
Medium Dark - 140 H



Cobra



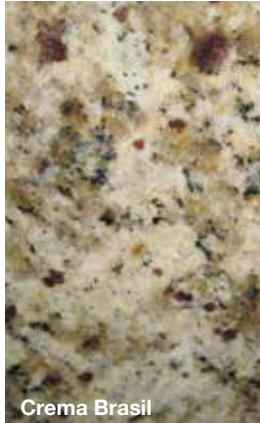
Terracotta



New Kashmir White



Rosa Iris



Crema Brasil



Giallo Ornamentale

Material

Granite



Golden Tiger



New Venetian Gold



Ouro Brasil



B-Brown



Preto Café



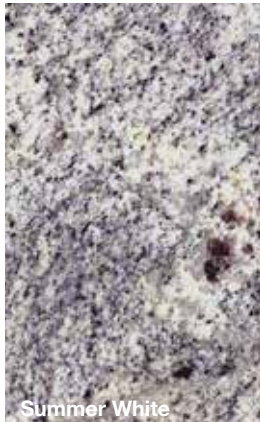
Maracuia



Summer Light



Buff Grey



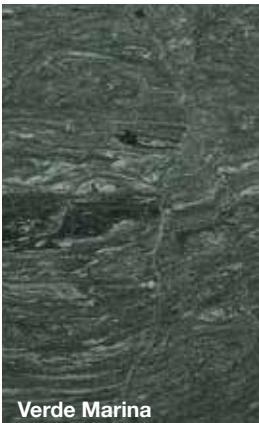
Summer White



Juparana Dourado



Multicolor



Verde Marina



Black Eyes



Nero Africa
Medium Dark +140 H

Material

Granite



Ivory White



Ilha Bela



Himalayan Blue



Black Pearl



Raji Black



Ametista



Paradiso Bash



Paradiso Classico



Saphire Brown



Golden Kam



Castor Blue



Verde Lavras



Verde Real



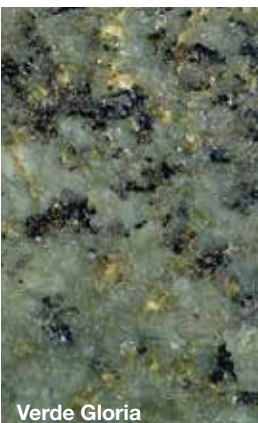
Crystal Azul



Ivory Fantasy



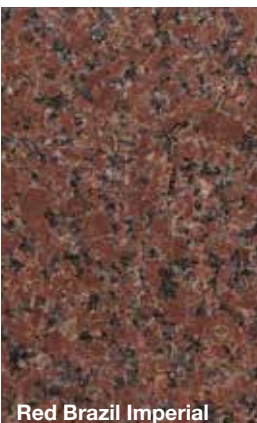
Marlyn Blue



Verde Gloria



Fantastic White



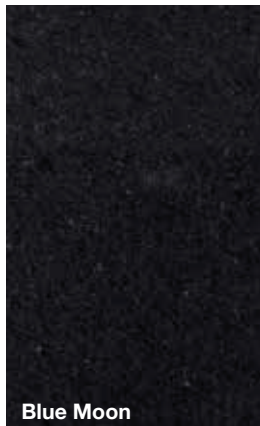
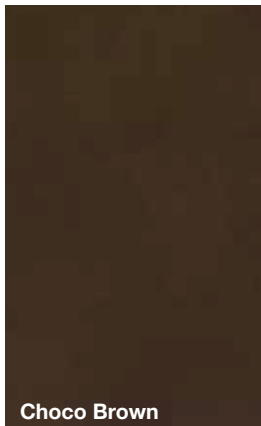
Red Brazil Imperial



Nebraska White

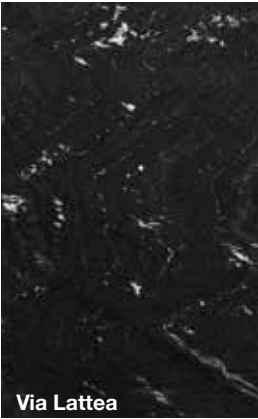
Material

Granite



Material

Granite



Via Lattea



Lilla Gerais



Grafite



Juparana Sol



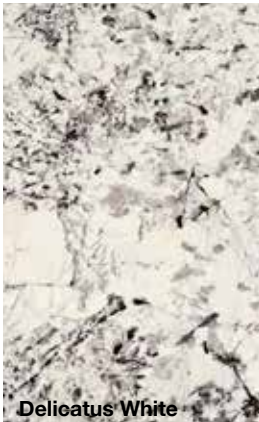
Twister



Fashion Bordeaux



Colonia White



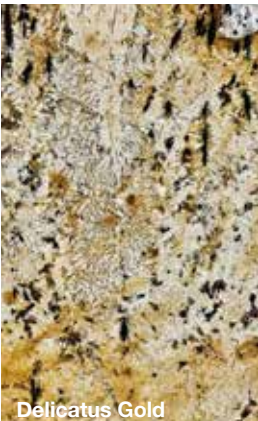
Delicatus White



Kashmire White



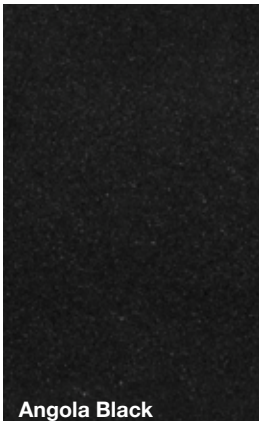
Matrix White



Delicatus Gold



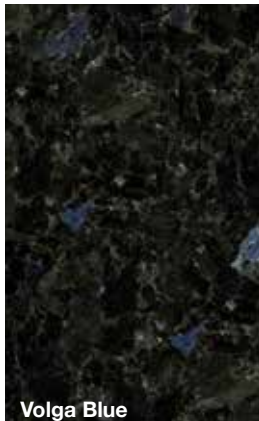
Symphony Brown



Angola Black



Juparana Colombo



Volga Blue



Nero Assoluto Zimbabwe



Ambra Dorata



Kashmire Gold



Madurai Gold



Vizag Blue

Material

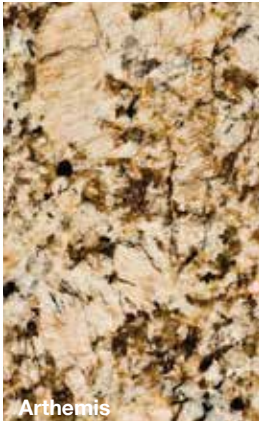
Granite



Amber Brown



Bianco Romano



Arthemis



Shrouk Green



Imperial Black



Shivakashi



Rosa Corallo



Ivory Brown



River White



Bahamas



Fantasy White



Blue In The Night



Labrador Antique

Material

Granite



Platinum



Delirium



Angola Gold



Bianco Antico



Namibian White



Emerald Pearl



Shangxi Black



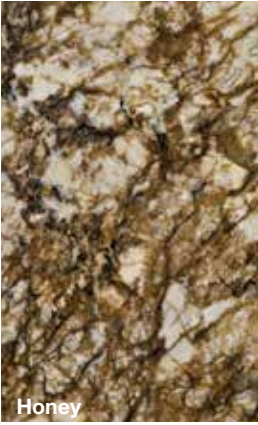
Namibian Gold



Caffe Imperiale



Shooting Star Gold



Honey



Bengal Black



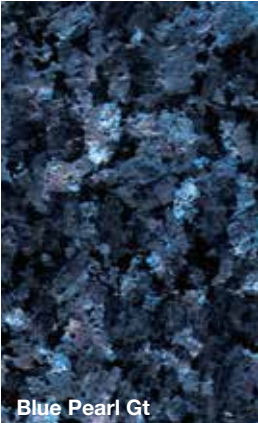
Sky Eave



Portorose



Delicatus Brown



Blue Pearl Gt



Nautilus Blue



Kashmire Gold



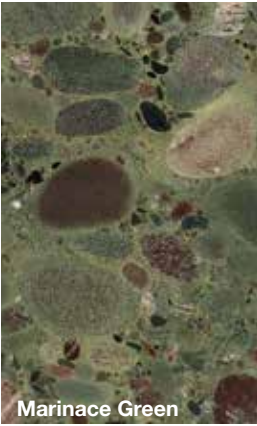
Siena Bordeaux



Brown Antique

Material

Granite



Material

Granite



Sierra Granada



Virginia Black



Snowfall



Tango Bordeaux



Matrix



Desert Storm



Constantine



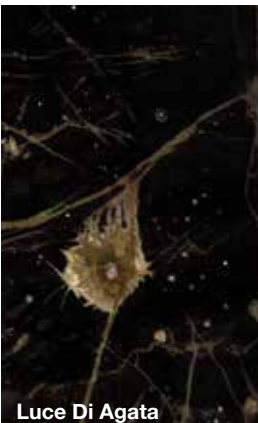
Bianco Piracema



Solarius



Rodhium



Luce Di Agata



Marinace Black & Gold



Ash Blue



Cosmic Black



Red Ink

Material

Granite



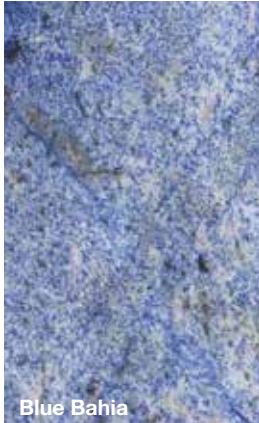
Abstract



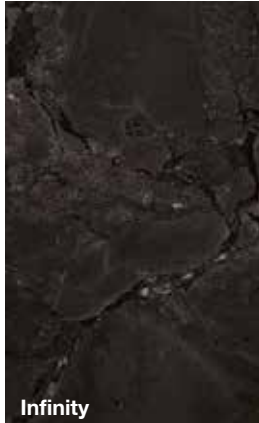
Nettuno Bordeaux



River Bordeaux



Blue Bahia



Infinity



Negresco



Nougat



Soap Stone Original



Titanium/ Asterix



Nebolous



Aquarius

Material

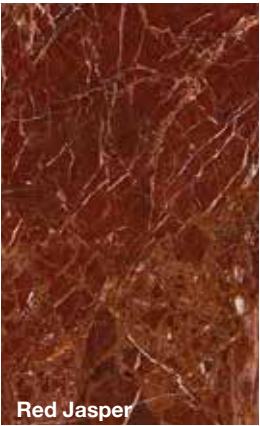
Granite



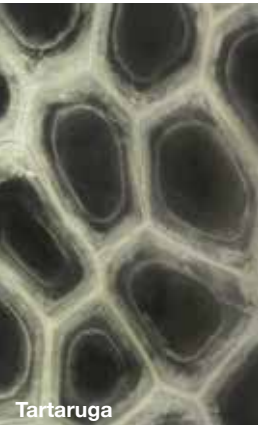
Shooting Star



Mascarello



Red Jasper



Tartaruga



Antartide



Costa Smeralda



Metallic



Brown Silk



Calypso Tropical



Copper Brown

Material

Granite



Duetto



Wasabi



Calypso Gold



Amarula



Dolcevita



Luce di Luna



Macaubas Gold



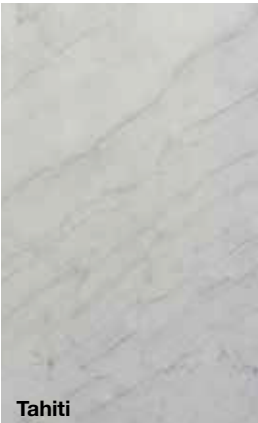
Montblanc



Palomino



Riviera



Tahiti



Caju



Cielo



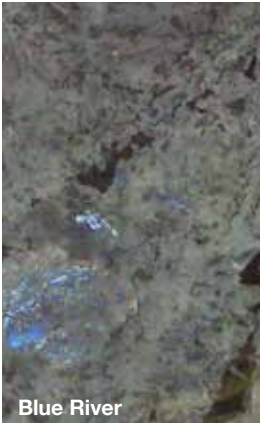
Blanc De Blanc



Ice Flake

Material

Granite

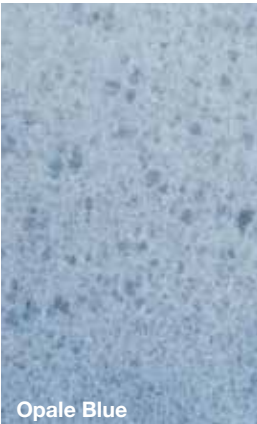


Material

Granite



Taj Mahal



Opale Blue



Green Fire



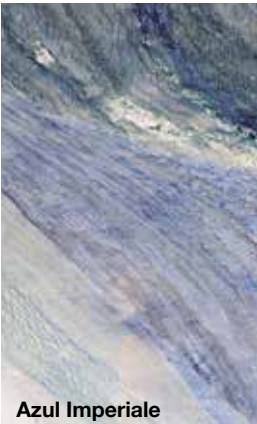
Botanic Green



Cristallo



Opale



Azul Imperiale



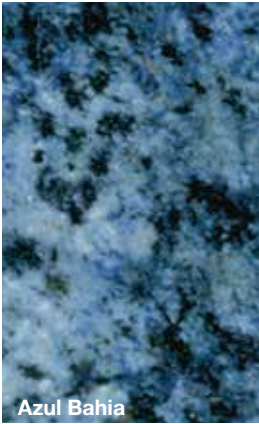
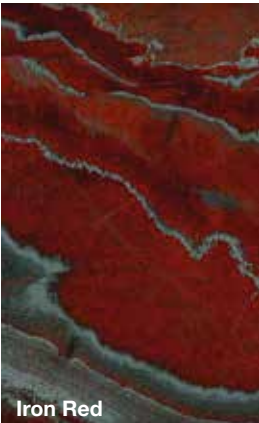
Azul Macaubas



Fusion

Material

Granite



Material

Marble •



Galala



Rainbow



Verde Guatemala



Crema Imperiale Top



Vratza



Rosa Asiago



Bianco Asiago Verso



Teak - Rainbow



Bianco Asiago Contro



Cioccolato



**Breccia Sarda
(Daino Reale)**



Amazon Brown



Lipica Fiorito



Palissandro Blue



Perlato Europa

Material

Marble •



Supreme Beige



Palissandro White



Botticino Fiorito



King Beige Fiorito



Rosso Verona



Fossil Grey



Rosso Asiago Verso



Rosso Asiago Contro



Tuff Dourado



Bianco Carrara Cd



Forest Green



King Beige

Material

Marble •



Material

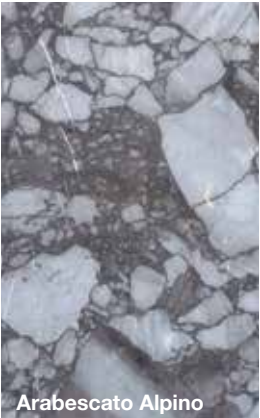
Marble



Breccia Damascata



Emperador Light



Arabescato Alpino



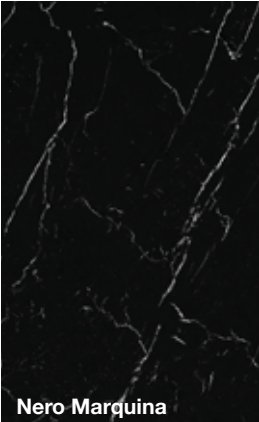
Verde Borgogna



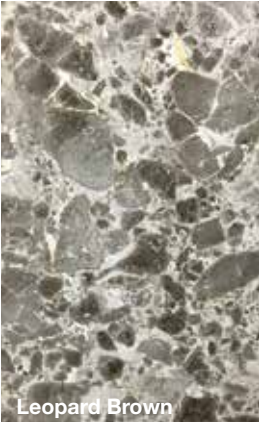
Bardiglio



Emperador Dark



Nero Marquina



Leopard Brown



Striato Olimpico



Bianco Carrara C



Bianco Gioia



Grigio Italia



Meteora Beige



Rosso Alicante

Material

Marble



Blue Sky



Lumen



Black Motion



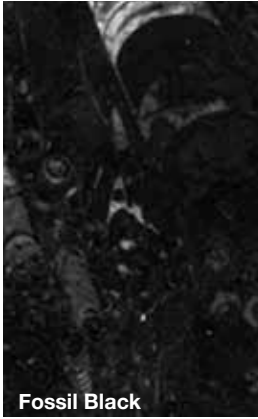
Bronze Amani



Grigio Carnico



Pietra Di Luserna



Fossil Black



Royal Brown



Deep Brown



Fossil Brown



Lemon White



Giallo Hera



Statuarietto

Material

Marble



Noble Grey



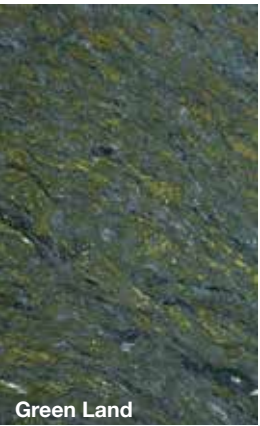
Olympos White



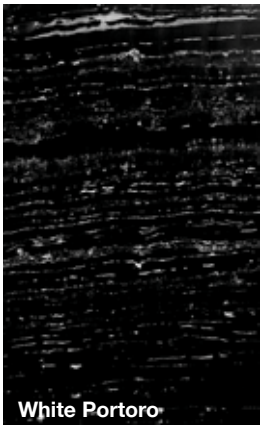
Mystic Grey Melange



Silk Georgette



Green Land



White Portoro



Arabescato
Orobico Grigio



Covelano Vena Argento



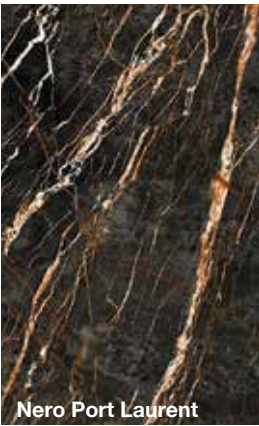
Opal White



Rhino White



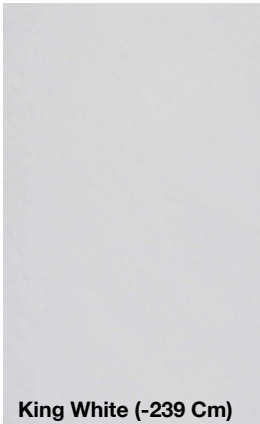
Nero Alpino



Nero Port Laurent

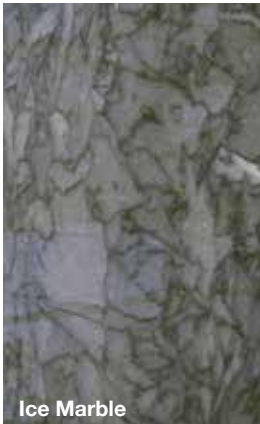
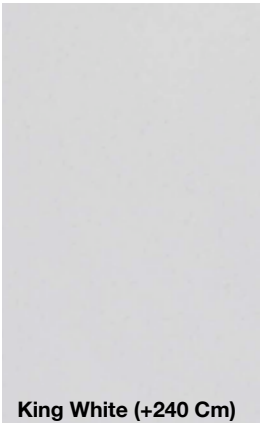
Material

Marble



Material

Marble



Material

Marble •



Material

Travertine



Material

Limestone •



Mocha Cream



Saint Hubert Limestone



Moleanos Limestone



Jura Limestone Beige



Jura Limestone Grey



Indiana Limestone



Shell Reef Limestone

Finishes



HONED

Marble / Travertine / Limestone
Granite / Sandstone



POLISHED

Marble / Travertine / Limestone
Granite / Sandstone



BRUSHED

Marble / Travertine / Limestone
Granite / Sandstone



CLEFT

Marble / Travertine / Limestone
Granite / Sandstone



BUSH HAMMERED

Marble / Travertine / Limestone
Granite / Sandstone



FLAMED

Marble / Travertine / Limestone
Granite / Sandstone



SCRATCH

Marble / Travertine / Limestone
Granite / Sandstone



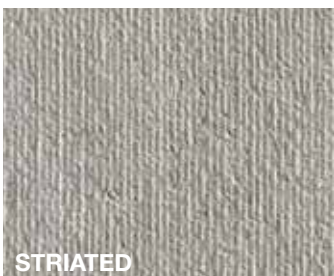
MILLE QUADRI

Marble / Travertine / Limestone
Granite / Sandstone



MILLE RIGHE

Marble / Travertine / Limestone
Granite / Sandstone



STRIATED

Marble / Travertine / Limestone
Granite / Sandstone



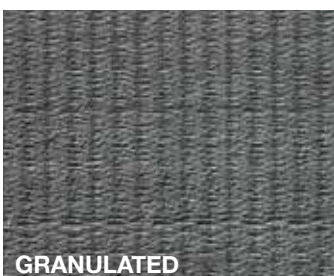
ROLLING

Marble / Travertine / Limestone
Granite / Sandstone



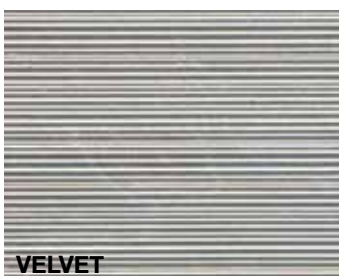
SANDBLASTED

Marble / Travertine / Limestone
Granite / Sandstone



GRANULATED

Marble / Travertine / Limestone
Granite / Sandstone



VELVET

Marble / Travertine / Limestone
Granite / Sandstone

General and Geometrical tolerance

Natural Air - 8 mm

TECHNICAL DATA	EU	USA	PANEL STRUCTURE
Max panel sizes	3200x1500 mm (4,800 m²)	126"x 59" (52.42ft²)	198 11 8 
Total Panel Thickness	19 mm	≈ 3/4"	
Stone Thickness	8 mm	≈ 5/16"	
Panel weight	28 kg/m²	5.73 lb/sqft	

Natural Air - 12 mm

TECHNICAL DATA	EU	USA	PANEL STRUCTURE
Max panel sizes	3200x1500 mm (4,800 m²)	126"x 59" (52.42ft²)	2312 11 12 
Total Panel Thickness	23 mm	≈ 7/8 "	
Stone Thickness	12 mm	≈ 15/32"	
Panel weight	36 kg/m²	7.4 lb/sqft	

Natural Air (granite) - 12 mm

TECHNICAL DATA	EU	USA	PANEL STRUCTURE
Max panel sizes	3200x1500 mm (4,800 m²)	126"x 59" (52.42ft²)	2312 11 12 
Total Panel Thickness	23 mm	≈ 7/8"	
Stone Thickness	12 mm	≈ 15/32"	
Panel weight	36 kg/m²	7.4 lb/sqft	

Dimensional deviations

(sizes in mm)

Up to 1.000	More than 1.000 Up to 2.000	More than 2.000 Up to 4.000
± 1	± 1.5	± 2

Dimensional deviations of monolithic assembled returns

(sizes in mm per each assembled return)

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

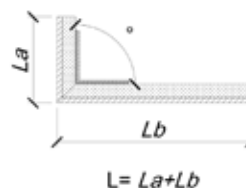
(sizes in mm per double assembled return)

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

Edge tolerances for monolithic assembled returns

Limit deviations refer to the total length in mm of the panels on the sides of the return

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



Edges for monolithic assembled returns

Dimension of the bevel or radius of the monolithic edge

Natural Stone	Max 5 mm
---------------	----------

Thickness

The thickness tolerance of the Air Panel is strictly linked to the material used because it is determined by the sum of the stone tolerance + the tolerance of the AIR panel laminated to the slab of stone

Material Thickness deviation (mm)

Maximum Thickness deviation
of AIR Panel (Σ Deviation in mm)

Natural Stone	tsn	Variable ²	tss+tsn
---------------	-----	-----------------------	---------

²Depends on the type of natural stone selected

Deviation from the diagonals of the single non assembled panels

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

ATTENTION: Deviating from the above specifications requires written agreement between both parties.

The data shown in this technical data sheet are not binding and can be modified without any kind of notice.

Technical data sheet

FIRE TEST

Test	Description	Result
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
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 ASTM E1530:2006	Test for Non-Combustibility	Non-combustible
ASTM C297/C297M - 16	Flatwise Tensile Bond Strength Evaluation (Fiberglass Mesh) Flatwise Tensile Bond Strength Evaluation (Foam Core) Flatwise Tensile Bond Strength Evaluation (Steel)	359 psi 190 psi 57,6 psi
NFPA 285	Fire test	Passed
BS8414-1	Fire test	Passed
AS/NZS 1530	Determination of ignitability, flame-propagation, heat release and smoke release	Ignitability 0 Spread of flame 0 Heat Evolved 0 Smoke developed 0-1

AMERICAN TESTS

Test	Description	Result
ASTM C393/C393M-16	Core Shear Properties (Negative Windload - Machine Direction) Core Shear Properties (Positive Windload) Core Shear Properties (Negative Windload - Crosswise Direction)	102,4 psi 18,7 psi 100,2 psi
ASTM C272/C272M-18	Water Absorption of Core Materials	6,143 ibm/ft³
ASTM C880/C880M-18	Flexural Strength Evaluation (Negative Windload - Dry Condition) Initial Failure Flexural Strength Evaluation (Negative Windload - Dry Condition) Ultimate Failure Flexural Strength Evaluation (Positive Windload - Dry Condition) Flexural Strength Evaluation (Negative Windload - Wet Condition) Flexural Strength Evaluation (Positive Windload - Wet Condition)	1.043 psi 2.932 psi 2.787 psi 891 psi 2.903 psi
ASTM C482-02	Bond Strength Mitered Corner Joint Assembly Shear Loading Evaluation	992,4 lb _f

EUROPEAN TESTS

Test	Description	Result
ETAG 004:2013	Heat-Rain 80 cycles	No fault
ETAG 004:2013	Heat-Cold 5 cycles	No fault
UNI EN ISO 10545-8:2014	Determination of linear thermal expansion	6.6° (<0.3 mm/600 mm)
UNI EN 772-14:2003	Determination of moisture movement	0.4 mm/m
UNI EN ISO 10545-4:2012	Determination of modulus of rupture and breaking strength	2.8± 0.3 N/mm²
UNI EN ISO 10545-4:2012	Breaking strength Heat-Rain 80 cycles + Heat-Cold 5 cycles	5.0± 0.5 N/mm²

The data shown in this technical data sheet are not binding and can be modified without any kind of notice.

EUROPEAN TESTS

Test	Description	Result
Rif. Test Certimac POI	Determination of bond strength by pull-off	1.15 ± 0.26 N/mm ²
Rif. Test Certimac POI	Bond strength after Heat-Rain 80 cycles + Heat-Cold 5 cycles	1.01 ± 0.31 N/mm ²
Rif. Test Certimac POI	Limit of detachment after water immersion (21 days)	0.27 ± 0.17 N/mm ²
UNI EN ISO 10545-3:2000	Determination of water absorption	6%*
UNI EN ISO 10545-9:2013	Determination of resistance to thermal shock	No fault
UNI EN ISO 10545-12:2000	Determination of frost resistance	No fault
ETAG 034-1:2012	Wind depression load resistance	4610 Pa
UNI EN 12664:2002	Determination of thermal conductivity	0.157 ÷ 0.170 W/mK
MED 2014/90/EU	Determination of calorific value	Passed
MED 2014/90/EU	Determination of the limited ability to propagate the flame	Passed

* It depends on the type of natural stone, the lower value refers to the Travertine, the highest value is for Sandstone. The results are based on tests made on a GammaStone Natural AIR panel in Sandstone sawn finish, untreated.





The GammaStone Natural AIR solution in natural stone allows the mechanical installation of large sized panels formed with marble, granite, limestone or travertine. It can be used to make beams, columns and any other architectural element with a monolithic result, creating the effect of one piece.

The available sizes depend on the block size, the maximum dimension is 3200x1500 mm

NATURAL AIR