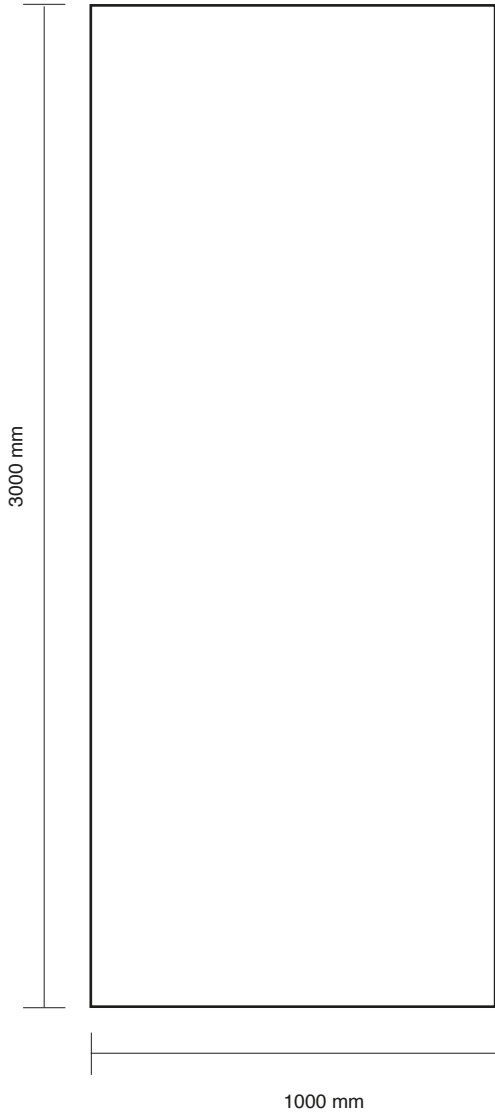


The GammaStone Brick AIR solution allows dry installation of Klinker or porcelain bricks with the advantages of a fast installation and beautiful aesthetics. The panels are delivered ready for installation, with the bricks pointed. The joints between panels are designed to guarantee a unique effect on the entire façade.



# BRICK AIR

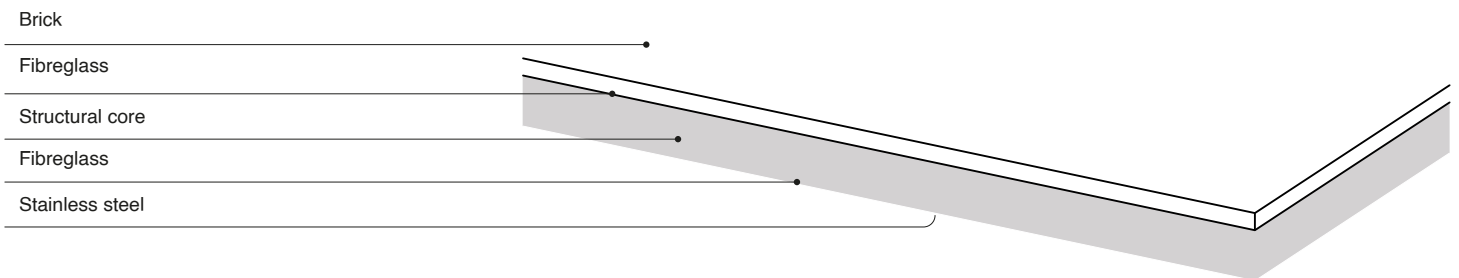
## General data



### Brick Air - Max Panel Sizes

3000x1000 mm (3,00 m<sup>2</sup>)  
118"x39" (32 ft<sup>2</sup>)

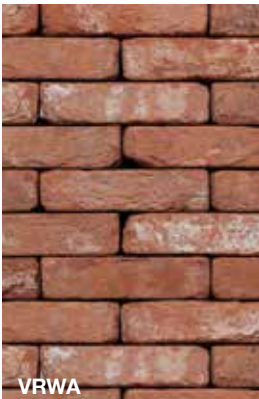
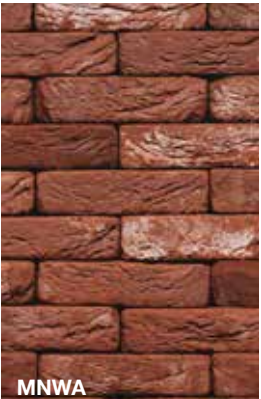
### Panel Structure



Colors

FACCIAVISTA

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Colors

KLINKER

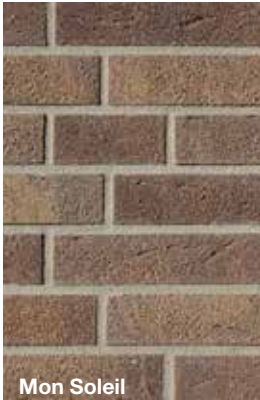
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Colors

KLINKER

---



Colors

GRES

---



Solutions

Zip - Without Zip

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Zip

Without Zip




## General and Geometrical tolerance

### Brick Gres 7 mm

TECHNICAL DATA	EU	USA	PANEL STRUCTURE
<b>Max panel sizes</b>			
Brick Gres	3000x1000 mm (3,00 m <sup>2</sup> )	118"x 39" (32 ft <sup>2</sup> )	
<b>Total Panel Thickness</b>			
Brick Gres	18 mm	≈ 23/32"	
<b>Brick Thickness</b>			
Brick Gres	7 mm	≈ 9/32"	
<b>Panel weight</b>			
Brick Gres	17 kg/m <sup>2</sup>	3.5 lb/sqft	

### Brick Klinker 15 mm

TECHNICAL DATA	EU	USA	PANEL STRUCTURE
<b>Max panel sizes</b>			
Klinker	3000x1000 mm (3,00 m <sup>2</sup> )	118"x 39" (32 ft <sup>2</sup> )	
<b>Total Panel Thickness</b>			
<b>Brick Thickness</b>			
Klinker	15 mm	≈ 19/32"	
<b>Panel weight</b>			
Klinker	22 kg/m <sup>2</sup>	4.5 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

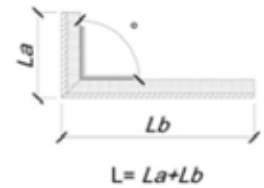
(sizes in mm per double assembled return)

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

Brick	Max 5 mm
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## Thickness

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

### Material Thickness deviation (mm)

### Maximum Thickness deviation of AIR Panel ( $\Sigma$ Deviation in mm)

Brick	tsg	Variable <sup>1</sup>	tss+tsg
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<sup>1</sup>Depends on the type of brick selected

## Deviation from the diagonals of the single non assembled panels

### Diagonal Dimension D1

Up to 1000 mm  
Between 1000 and 2000 mm  
Above 2000 mm

### Difference with Diagonal D2

2 mm  
3 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	Standard Test Method for Flatwise Tensile Strength	1,37 ± 0,05 MPa
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

### AMERICAN TESTS

Test	Description	Result
ASTM C67/C67M-18	Freeze Thaw Cycling Resistance Evaluation (Continued) MASS CHANGE	0,16 %
ASTM C273/C273M-18	Shear - Calculated Results Shear - Calculated Results (C481 Aged)	902,0 psi 1.040,50 psi
ASTM C364/C364M-16 E	Edgewise Compressive Strength Edgewise Compressive Strength (C481 Aged)	3.397 psi 3.686 psi
ASTM C365/C365M-16	Flatwise Compressive Strength Flatwise Compressive Strength (C481 Aged)	948 psi 1.883 psi
ASTM C297/C297M-16	Flatwise Tensile Bond Strength Evaluation Flatwise Tensile Bond Strength Evaluation (C481 Aged)	91,4 psi 88,5 psi
ASTM C393/C393M-16	Results (Control - Lengthwise Production) Results (Control - Crosswise Production) Results (C481 Aged - Lengthwise Production) Results (C481 Aged - Crosswise Production)	300,3 psi 249,8 psi 306,0 psi 237,4 psi
ASTM D1781-98(2012)	Climbing Drum Peel Strength Climbing Drum Peel Strength (C481 Aged)	140,61 lb <sub>f</sub> 120,24 lb <sub>f</sub>
ASTM G154-16	UV Exposure/ D2244 Color Shift Evaluation UV Exposure/ D2244 Color Shift Evaluation (Grout)	0,78 ΔE 0,92 ΔE

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## EUROPEAN TESTS

Test	Description	Result
UNI EN ISO 10545-3:2000	Determination of water absorption	0,9%
UNI EN 12089:2013	Determination of bending behavior	27772 kPa
UNI EN ISO 10545-12:2000	Determination of frost resistance	No fault
UNI EN 12664:2002	Thermal resistance	0,237 m <sup>2</sup> K/W
UNI EN 826:2013	Determination of compression behavior	1377 kPa
UNI EN ISO 9142:2004	Accelerated ageing	No fault
UNI EN ISO 9227:2012	Resistance in Neutral Salt Spray NSS	No fault
UNI EN ISO 10545-9:2013	Thermal shock resistance	No fault
UNI EN 772-14:2003	Determination of moisture movement	0.0 mm/m
UNI EN 14019:2004 ETAG 034-1:2012	Impact resistance	No damage
ETAG 004:2013	Heat-Rain 80 cycles and Heat-Cold 5 cycles resistance	No fault
UNI EN ISO 10545-8:2014	Determination of linear thermal expansion	2.1 (<0.1 mm/600 mm)
UNI EN ISO 10545-4:2012	Determination of the breaking strength	22.9 ± 1.7 N/mm <sup>2</sup>
UNI EN ISO 10545-4:2012	Flexure after Heat-Rain 80 cycles + Heat-Cold 5 cycles	23.2 ± 3.0 N/mm <sup>2</sup>
Rif. Test Certimac POI	Determination of bond strength by pull-off	1.63 ± 0.20 N/mm <sup>2</sup>
Rif. Test Certimac POI	Bond strength after Heat-Rain 80 cycles + Heat-Cold 5 cycles	1.42 ± 0.25 N/mm <sup>2</sup>
Rif. Test Certimac POI	Bond strength after water immersion (21 days)	1.01 ± 0.27 N/mm <sup>2</sup>
ETAG 034-1:2012	Wind depression load resistance	4610 Pa
MED 2014/90/EU	Determination of calorific value	Passed
MED 2014/90/EU	Determination of the limited ability to propagate the flame	Passed

The tests refer to a GammaStone Brick AIR panel with 20 mm thick brick. The complete list of tests can be found on [gammastone.com](http://gammastone.com)



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# BRICK AIR