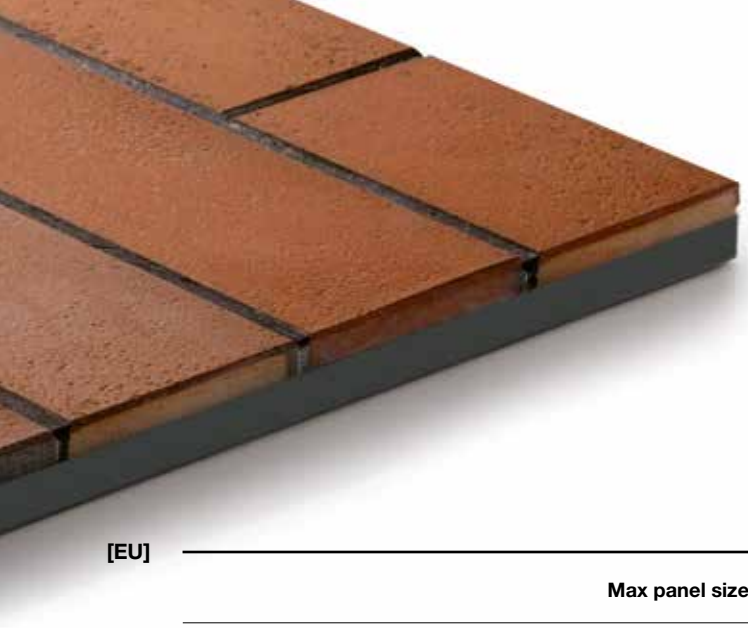
DATA SHEET

GammaStone

BRICK — AIR

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

[EU]

Max panel sizes: 3000x1000 mm (3,00 m²)

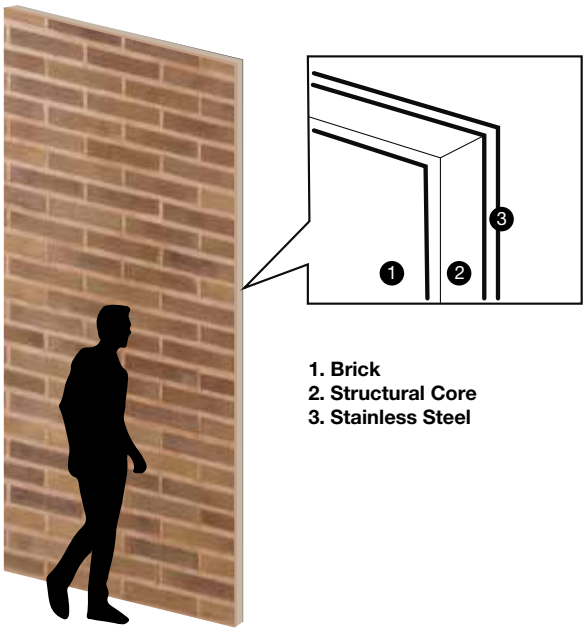
	Total panel thickness	Brick thickness	Panel weight
Brick Gres	19 mm	7 mm	17 kg/m²
Klinker A	18÷23 mm	6÷11 mm	27÷30 kg/m²
Klinker B	27 mm	15 mm	22 kg/m²
Facciavista	32 mm	20 mm	22 kg/m²

[USA]

Max panel sizes: 118-7/64”x39-3/8” (32 ft²)

Brick Gres	3/4”	9/32”	3.5 lb/sqft
Klinker A	45/64”÷29/32”	15/64”÷7/16”	5.5÷6.1 lb/sqft
Klinker B	1-1/16”	19/32”	4.5 lb/sqft
Facciavista	1-17/64”	25/32”	4.5 lb/sqft

PANEL STRUCTURE



1. Brick
2. Structural Core
3. Stainless Steel

Technical data sheet

Test	Description	Result
UNI EN ISO 10545-3:2000	Determination of water absorbtion	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^2 K/W
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
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^2
UNI EN ISO 10545-4:2012	Flexure after Heat-Rain 80 cycles + Heat-Cold 5 cycles	23.2 ± 3.0 N/mm^2
Rif. Test Certimac POI	Determination of bond strength by pull-off	1.63 ± 0.20 N/mm^2
Rif. Test Certimac POI	Bond strength after Heat-Rain 80 cycles + Heat-Cold 5 cycles	1.42 ± 0.25 N/mm^2
Rif. Test Certimac POI	Bond strength after water immersion (21 days)	1.01 ± 0.27 N/mm^2
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 **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
MED 2014/90/EU	Determination of calorific value	Passed
MED 2014/90/EU	Determination of the limited ability to propagate the flame	Passed
ASTM C67/C67M-18	Freeze Thaw Cycling Resistance Evaluation (Continued) MASS CHANGE	0,16 %

Technical data sheet

Test	Description	Result
ASTM C273/C273M-18	Shear - Calculated Results	902,0 psi
	Shear - Calculated Results (C481 Aged)	1.040,50 psi
ASTM C364/C364M-16	Edgewise Compressive Strength	3.397 psi
	Edgewise Compressive Strength (C481 Aged)	3.686 psi
ASTM C365/C365M-16	Flatwise Compressive Strength	948 psi
	Flatwise Compressive Strength (C481 Aged)	1.883 psi
ASTM C297/C297M-16	Flatwise Tensile Bond Strength Evaluation	91,4 psi
	Flatwise Tensile Bond Strength Evaluation (C481 Aged)	88,5 psi
ASTM C393/C393M-16	Results (Control - Lengthwise Production)	300,3 psi
	Results (Control - Crosswise Production)	249,8 psi
	Results (C481 Aged - Lengthwise Production)	306,0 psi
	Results (C481 Aged - Crosswise Production)	237,4 psi
ASTM D1781-98(2012)	Climbing Drum Peel Strength	140,61 lb_f
	Climbing Drum Peel Strength (C481 Aged)	120,24 lb_f
ASTM G154-16	UV Exposure/ D2244 Color Shift Evaluation	0,78 ΔE
	UV Exposure/ D2244 Color Shift Evaluation (Grout)	0,92 ΔE
AS/NZS 1530	Determination of ignitability, flame-propagation, heat release and smoke release	Ignitabilty 0 Spread of flame 0

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.

General and geometrical tolerances

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)

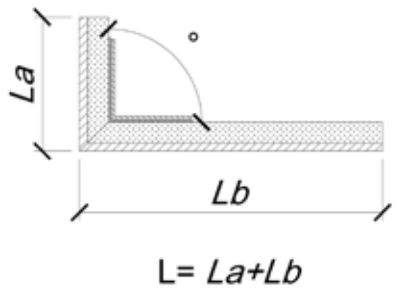
Up to 500	More than 500 Up to 1.000	More than 1.000 Up to 2.000
-1 +2	-1 +2.5	-1.5 +3

(sizes in mm per double assembled returns)

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 1000	L More than 1000
± 1°	± 0°30’	± 0°20’



General and geometrical tolerances

Edges for monolithic assembled returns

Dimension of the bevel or radius of the monolithic edge

Brick	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 Brick tolerance + the tolerance of the AIR panel laminated to the slab of Brick.

Material Thickess deviation (mm)			**Maximum Thickness deviation of AIR Panel (∑ Deviation in mm)**
Brick	tsg	Variable [1]	tss+tsg

[1] Depends on the type of brick 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.