

GRES — AIR

The **GammaStone AIR** solution in **porcelain gres** is available in large formats by utilizing the new slim manufacturing techniques. It's a highly technological product which allows mechanical installation of 3 or 6 mm thick porcelain slabs and the manufacturing of architectural monolithic returns. Available sizes up to 3200x1500 mm.

GRES — AIR



archiproducts
DESIGN AWARDS
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WINNER 2018

[EU]

Max panel sizes: 3200x1600 mm (5,12 m²); 3075x1540 mm (4,73 m²); 3075x1040 mm (3,19 m²)

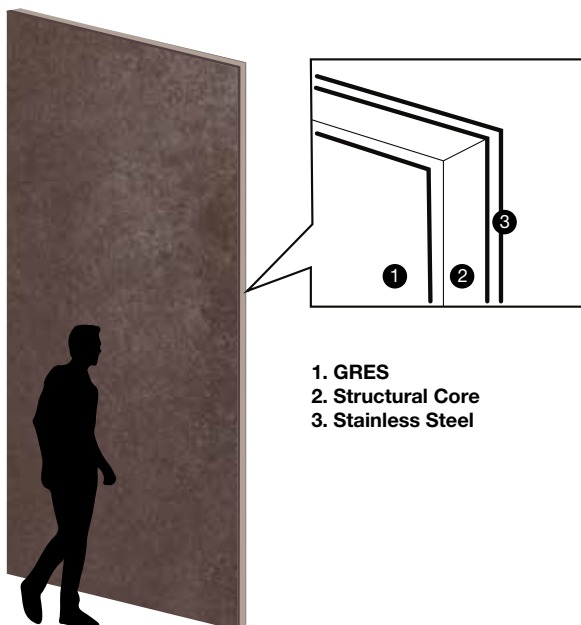
Total panel thickness	Ceramic thickness	Panel weight
14 mm	3 mm	14 kg/m ²
16 mm	5 mm	19 kg/m ²
17 mm	6 mm	21 kg/m ²

[USA]

Max panel sizes: 125-63/64"x62-63/64" (55.11 ft²); 121-1/16"x60-5/8" (50.97 ft²); 121-1/16"x40-15/16" (34.42 ft²)

35/64"	1/8"	30,9 lb/sqft
5/8"	13/64"	41,9 lb/sqft
43/64"	15/64"	46,3 lb/sqft

PANEL STRUCTURE



1. GRES
2. Structural Core
3. Stainless Steel

Technical data sheet

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 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	Non-combustible
NFPA 285	Fire test	1,37 ± 0,05 MPa
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

The tests refer to a GammaStone Gres AIR panel with 3 mm thick ceramic slab. 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

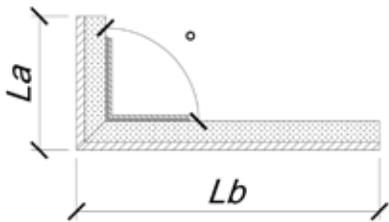
(sizes in mm per double assembled returns)

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'



$L = La + Lb$

General and geometrical tolerances

Edges for monolithic assembled returns

Dimension of the bevel or radius of the monolithic edge

Gres	Max 3 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 Gres tolerance + the tolerance of the AIR panel laminated to the slab of Gres.

Material Thickness deviation (mm)			Maximum Thickness deviation of AIR Panel (Σ Deviation in mm)
Gres	tsg	Variable ¹	tss+tsg

¹ Depends on the type of porcelain gres 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.