

Bologna, 14/06/18

Messrs

GAMBINI GROUP S.p.A.  
Via Radici in Piano, 675  
41049 SASSUOLO (MO)

## TEST LABORATORY

### TEST REPORT No. 5045/18

concerning ceramic tiles according to EN 14411 : 2016

Requested by:	GAMBINI GROUP S.p.A. Via Radici in Piano, 675 41049 SASSUOLO (MO)
On (date):	28/05/18
For the sample marked:	"PALACE RETT".

**The results reported relate only to the samples tested.**

**No responsibility is taken for the accuracy of the sampling unless it is done under our own supervision.**

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**This test report consists of 6 pages this cover included.**



DESCRIPTION OF THE SAMPLE:	Ceramic tiles glazed 35.5 x 71 x 0.9 cm, marked "PALACE RETT".
Manufacturer:	-----
Sampling details	
- Where:	-----
- Date:	-----
- By whom:	-----
- How (methods):	-----
Date of receipt in laboratory:	22/05/18

## TESTS PERFORMED :

<input checked="" type="checkbox"/>	EN ISO 10545 - 2 :1997	Determination of dimensions and surface quality	Date of starting 14/06/18	Date of ending 14/06/18
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Tests performed in collaboration with: Reverse & Quality Srl Via R. dalla Costa 2/a 41122 Modena

Instrument identifying data - CMM Hexagon Global Advantage			
Instrument	GLOBAL 123010 Numero: GLOD0007461A	Temperature	21°
		Humidity	60%
Primary standard	8505-DK15151-01-00_2015-02 200302S173	Procedures	PQRQ09;PTRQ01
ACCREDIA Calibration Report	GLOD0007461A1503041016	Uncertainty	3 µm/1000mm

**EN ISO 10545 - 2 : 1997 - Determination of dimensions and surface quality****2 - Length and width**
 Work size (W) - mm:  Thickness - mm: 

	Side A (mm)	Side B (mm)	Side C (mm)	Side D (mm)	Average (A-C) (mm)	Deviat. % from W	Average (B-D) (mm)	Deviat. % from W
1	347.9	699.8	347.8	699.5	347.9	0.0	699.7	0.0
2	347.9	699.8	347.8	699.5	347.9	0.0	699.7	0.0
3	347.9	699.8	347.8	699.5	347.9	0.0	699.7	0.0
4	347.8	699.5	347.9	699.7	347.9	0.0	699.6	-0.1
5	347.8	699.4	347.9	699.6	347.9	0.0	699.5	-0.1
6	347.9	699.8	347.8	699.5	347.9	0.0	699.7	0.0
7	347.9	699.6	347.8	699.5	347.9	0.0	699.6	-0.1
8	347.9	699.8	347.8	699.5	347.9	0.0	699.7	0.0
9	347.8	699.5	347.9	699.7	347.9	0.0	699.6	-0.1
10	347.9	699.1	347.8	699.5	347.9	0.0	699.3	-0.1

 Average size of the 10 test specimens (A - B x C - D) : 

Deviation (%) of the average size of each tile from the average size of the 10 test samples:

	1	2	3	4	5	6	7	8	9	10
A-C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B-D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**3 - Thickness**

	A (mm)	B (mm)	C (mm)	D (mm)	Average (mm)	Deviat % from thickness.
1	9.0	9.0	9.0	9.0	9.0	0.0
2	9.0	8.9	8.9	9.0	9.0	0.0
3	9.0	9.0	9.0	8.9	9.0	0.0
4	9.0	9.0	8.9	9.0	9.0	0.0
5	9.0	9.0	9.0	9.0	9.0	0.0
6	9.0	9.0	9.0	9.0	9.0	0.0
7	9.0	8.9	9.0	9.0	9.0	0.0
8	9.0	9.0	8.9	8.9	9.0	0.0
9	9.0	9.0	9.0	9.0	9.0	0.0
10	9.0	9.0	8.9	8.9	9.0	0.0

**EN ISO 10545 - 2 : 1997 - Determination of dimensions and surface quality**Work size (W) - mm: 

348.0 x 700.0
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**4 - Straightness of sides**

	A (mm)	B (mm)	C (mm)	D (mm)
1	0.3	0.1	0.0	0.0
2	0.3	0.1	-0.1	0.0
3	0.3	0.1	0.0	-0.1
4	-0.1	0.0	0.3	0.1
5	-0.1	-0.1	0.4	0.1
6	0.3	0.0	-0.1	0.1
7	0.3	0.1	-0.1	0.0
8	0.3	0.0	-0.1	0.0
9	-0.1	0.0	0.3	0.1
10	0.6	0.1	-0.1	0.0

Maximum deviation from straightness (%):

0.2	0.0
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**5 - Rectangularity**

	A (mm)	B (mm)	C (mm)	D (mm)
1	1.0	-2.1	0.7	-1.4
2	0.9	-1.9	0.7	-1.3
3	0.9	-1.9	0.7	-1.3
4	0.7	-1.5	1.0	-2.1
5	0.9	-1.7	1.0	-2.1
6	0.8	-1.8	0.6	-1.2
7	1.1	-2.3	1.0	-1.9
8	0.8	-1.8	0.6	-1.1
9	0.7	-1.4	0.9	-1.9
10	0.0	-0.2	0.5	-0.9

Maximum deviation from rectangularity (%):

0.3	-0.3
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**EN ISO 10545 - 2 : 1997 - Determination of dimensions and surface quality**

Work size (W) - mm: 348.0 x 700.0

**6.1.2 - Surface flatness: centre curvature**

	A (mm)	B (mm)	C (mm)	D (mm)
1	-0.2	-0.1	-0.2	-0.1
2	-0.1	-0.2	-0.1	-0.2
3	0.0	-0.3	0.0	-0.3
4	0.0	-0.1	0.0	-0.1
5	0.2	0.3	0.2	0.3
6	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0
8	-0.1	0.0	-0.1	0.0
9	0.0	-0.1	0.0	-0.1
10	0.2	0.1	0.2	0.1

Maximum centre curvature (%), related to diagonal calculated from the work size (W): 0.0

**6.1.3 - Surface flatness: edge curvature**

	A (mm)	B (mm)	C (mm)	D (mm)
1	0.1	0.0	-0.2	0.1
2	0.0	-0.1	-0.1	-0.1
3	-0.2	0.0	-0.1	0.0
4	-0.2	0.1	0.1	0.2
5	0.0	0.1	-0.2	0.1
6	0.0	-0.1	0.1	-0.1
7	0.1	0.1	-0.1	0.1
8	0.1	-0.2	-0.1	0.0
9	-0.2	0.1	0.0	0.0
10	0.2	0.1	-0.2	0.2

Maximum edge curvature (%), related to the corresponding work size (W): 0.1 0.0



**EN ISO 10545 - 2 : 1997 - Determination of dimensions and surface quality**

Work size (W) - mm: 348.0 x 700.0

**6.1.4 - Surface flatness: warpage**

	A (mm)	B (mm)	C (mm)	D (mm)
1	0.2	-0.2	0.2	-0.2
2	-0.2	0.2	-0.2	0.2
3	-0.6	0.6	-0.6	0.6
4	-0.2	0.2	-0.2	0.2
5	0.1	-0.1	0.1	-0.1
6	0.0	0.0	0.0	0.0
7	-0.1	0.1	-0.1	0.1
8	0.1	-0.1	0.1	-0.1
9	-0.3	0.3	-0.3	0.3
10	-0.1	0.1	-0.1	0.1

Maximum warpage (%), related to diagonal calculated from the Work size: 0.1

REVERSE & QUALITY

Operatore RQ  
Marco Ballarin

Supervisore RQ  
Giuseppe Carboni

CENTRO CERAMICO

Giordana Carani  
Technical verification

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