

FOSHAN VIEWGRES CO., LTD

TEST Report

SCOPE OF WORKS

<Type of Testing – PORCELAIN TILE>

REPORT NUMBER

190308061GZU-001

ISSUE DATE

17-Apr-19

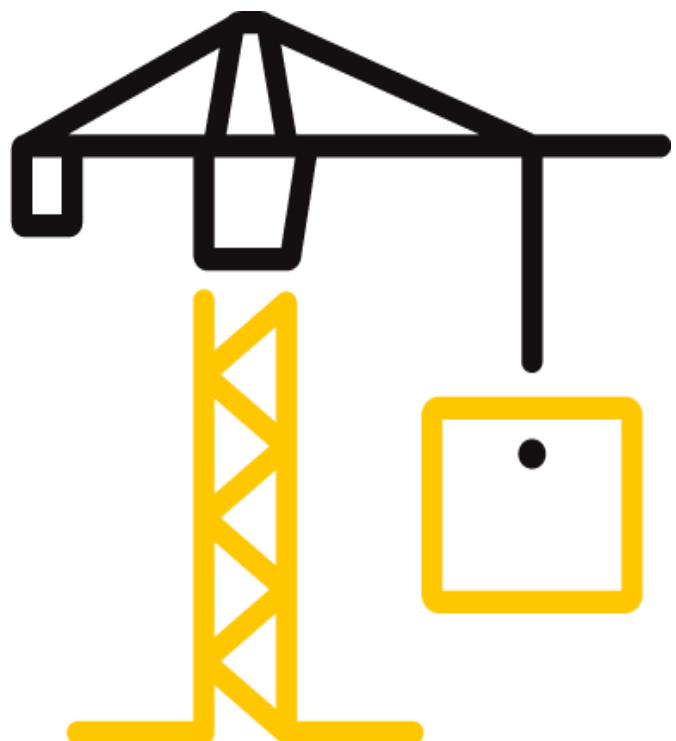
PAGES

17

DOCUMENT CONTROL NUMBER

TTRF-EN14411-b

© 2018 INTERTEK



Test Report

Report Number: 190308061GZU-001**Report Date: 2019-04-17****Applicant:** FOSHAN VIEWGRES CO.,LTD**Applicant Address:** FLOOR 21ST BUILDING T5, SMART CITY, NO.1 JIHUA ROAD, FOSHAN,
GUANGDONG, CHINA**Sample Information As Declaration:****Product Name:** PORCELAIN TILE**Trade Mark:** VIEWGRES**Model or Type reference:** CR3664A, CR3665A, CR3666A, MC3662A, MC3663A, MC3665A, MC3669A,
AD3664A, AD3665A, AD3669A, TQ001A, TQ002A, BS3665A, BS3669A,
GN3603A, GN3636A, GN3654A, GN3663A, GN3684A, GN3602A, QU3661A,
QU3665A, QU3666A, TR3661A, TR3665A, TR3666A, MU3669A, OS3661A,
OS3664A, OS3665A, OS3666A, PL3661A, PL3665A, PL3669A**Manufacturer:** GUANGDONG BOHUA CERAMICS CO., LTD**Manufacturer Address:** CERAMICS CITY, LONGSHAN TOWN, FOGANG COUNTY, QINGYUAN CITY,
GUANGDONG, CHINA, ZIP CODE:511685**Intend Use:** For external floor finishes.**Ratings:** Dry-pressed ceramic tiles with glazed finish, water absorption not more
than 0,5%, Group Bla, for external floor finishes.**Sample ID:** S190308061-001~014**Date Received:** 2019-03-08**Date Test Conducted:** From 2019-03-08 to 2019-04-04**Status As Sample Received:** Received was in good condition**General remarks:**

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

"(See remark #)" refers to a remark appended to the report.

"(See Appendix #)" refers to an appendix appended to the report.

Throughout this report a comma (point) is used as the decimal separator.

When determining the test result, measurement uncertainty has been considered.

The clause which indicated with * is the subcontract test item.

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Testing Information

Standard: EN 14411:2016
Test lab : Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch
Test lab address: Room 4103 & 4203, No. 63, Punan Road,
Huangpu District, Guangzhou, Guangdong
Province, China

Possible test case verdicts:

Test case does not apply to the test object: N/A
Test object does meet the requirement: P(Pass)
Test object does not meet the requirement: F(Fail)

Conclusion:

The submitted samples were tested and found to **COMPLY WITH** applicable requirements of EN 14411: 2016 (E).

General Product information

This report included 34 models, The client claimed all models were the same in material, method of manufacture (dry-pressed), water absorption ($E \leq 0,5\%$), surface finish (glazed) and usage (for floor finishes), except for the colour design. The report data were mainly based on model GN3603A(598*598*30mm). Besides, CR3664A, MC3662A, OS3661A (598*598*30mm) were tested the breaking strength, modulus of rupture and the slipperiness, test data was listed in Appendix A.

Model	water absorption	Glazed or not	Method of manufacture	Wall or Floor tile	Internal or External	Work size, mm	Nominal size, mm
CR3664A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30
CR3665A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30
CR3666A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30
MC3662A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30
MC3663A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30
MC3665A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30
MC3669A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30
AD3664A	$\leq 0,5\%$	Glazed	Dry pressed	Floor tile	External	598*598*30	600*600*30

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

AD3665A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
AD3669A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
TQ001A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
TQ002A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
BS3665A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
BS3669A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
GN3603A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
GN3636A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
GN3654A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
GN3663A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
GN3684A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
GN3602A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
QU3661A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
QU3665A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
QU3666A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
TR3661A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
TR3665A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
TR3666A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
MU3669A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
OS3661A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
OS3664A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
OS3665A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
OS3666A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
PL3661A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
PL3669A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30
PL3665A	<=0,5%	Glazed	Dry pressed	Floor tile	External	598*598*3 0	600*600*30


Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Copy of marking plate and summary of test results (information/comments):

Only example for specified model: e.g. GN3603A(598*598*30mm)

	
GUANGDONG BOHUA CERAMICS CO., LTD	
CERAMICS CITY, LONGSHAN TOWN, FOGANG COUNTY, QINGYUAN CITY, GUANGDONG, CHINA, ZIP CODE:511685	
19	
XXX-CPR-2019/04/17	
EN 14411:2016	
Ceramic tiles	
Characteristics	Declared values
Reaction to fire	A1 _{fl}
Release of dangerous substances, for:	
Cadmium	<0.03mg/dm ²
Lead	<0.05mg/dm ²
Breaking strength	23279N
Slipperiness	CEN/ TS 16165: 2012 Annex C Slider 57, PTV: Dry 102, Wet 66
Bond strength	N/A
Thermal shock resistance	Pass
Durability for:	
internal uses	N/A
external uses: freeze-thaw resistance	Pass
Tactility	N/A

Note:

- a) If the CE marking is reduced or enlarged the proportions given in the above graduated drawing must be respected.
- b) The various components of the CE marking must have substantially the same vertical dimension, which may not be less than 5 mm.
- c) CE marking and label shall be affixed visibly, legibly and indelibly.
- d). "XXX-CPR-2019/04/17" should be the reference number of the DoP.

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
4	Classification of ceramic tiles	Methods of manufacture: Method B, dry-pressed tiles Water absorption (E) groups: E <=0,5% (Group BIa)	—
5	Requirements		—
5.2	Characteristics The characteristics for different applications of ceramic tiles are given in Table 2:	Used as external floor finishes, meet the requirement, listed in Annex G.	—
6.1	General The compliance of ceramic tiles with the requirements of this European Standard and with the performances declared (i.e. classes, levels) by the manufacturer in the DoP shall be demonstrated by: — determination of product type or group (through type testing); — factory production control by the manufacturer, including product assessment. The manufacturer shall always retain the overall control and shall have the necessary means to take responsibility for the conformity of the product with its declared performance(s).	Refer clause 6.2 and clause 6.3	—
6.2	Type testing All performances related to characteristics included in this standard shall be determined when the manufacturer intends to declare the respective performances unless the standard gives provisions for declaring them without performing tests (e.g. use of previously existing data, CWFT and conventionally accepted performance).	Meet the requirement, listed in clause 5	P

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
6.3	Factory Production Control (FPC)		
6.3.1	<p>General</p> <p>The manufacturer shall establish, document and maintain a factory production control (FPC) system to ensure that the products placed on the market conform to the stated performance characteristics.</p>	<p>The manufacturer was qualified according to ISO 9001 (Detail refers to Appendix B)</p>	P
6.3.2	<p>Requirements</p> <p>The manufacturer is responsible for organizing the effective implementation of the FPC system in line with the content of this product standard. Tasks and responsibilities in the production control organization shall be documented and this documentation shall be kept up-to-date.</p>	<p>The manufacturer was qualified according to ISO 9001 and declaration was provided. (Detail refers to Appendix B)</p>	P
6.3.3	<p>Product specific requirements</p> <p>The FPC system shall address this European Standard and ensure that the products placed on the market comply with the declaration of performance.</p>	<p>Refer to declaration of performance.</p>	—
6.3.4	<p>Procedure for modifications</p> <p>The manufacturer shall maintain records in order to be able to prove that a product or a family in a group of products have been inspected and/or tested.</p>	<p>No performance determined.</p>	—

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
6.3.5	<p>One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity products produced in very low quantities shall be assessed as follows.</p> <p>For type assessment, the provisions of 6.2.1, 3rd paragraph apply, together with the following additional provisions:</p> <ul style="list-style-type: none"> — in case of prototypes, the test samples shall be representative of the intended future production and shall be selected by the manufacturer; — on request of the manufacturer, the results of the assessment of prototype samples may be included in a certificate or in test reports issued by the involved third party. <p>The FPC system of one-off products and products produced in very low quantities shall ensure that raw materials and/or components are sufficient for production of the product. The provisions on raw materials and/or components shall apply only where appropriate. The manufacturer shall maintain records allowing traceability of the product.</p> <p>Once series production is fully established, the provisions of 6.3 shall apply.</p>	No performance determined.	—
7	Designation		—

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
8	<p>Marking</p> <p>Each ceramic tile covered by this European Standard shall bear on its reverse side or edge, the indication of the country where the tile was manufactured, except for mosaics where this is not possible due to their small size.</p> <p>Furthermore, each packaging of ceramic tiles shall bear the following marking information:</p> <p>a) manufacturer's mark and/or trademark and indication of the country where the tile was manufactured, that is, the country where the tile was first fired;</p> <p>b) indication of quality designation, when relevant (see 5.1);</p> <p>c) reference to the appropriate annex of this European Standard, i.e. EN 14411:2016, and classification ("Precision" or "Natural"), where applicable;</p> <p>d) nominal and work sizes;</p> <p>e) nature of the surface, i.e. glazed (GL) or unglazed (UGL);</p> <p>f) surface treatment applied after firing, if any;</p> <p>g) maximum total dry weight of a packaging of ceramic tiles.</p>	<p>Complied, See 'Marking on the package' and Appendix C4</p>	P
Annex G	<p>Length and width</p> <p>a) for modular tiles: in order to allow a nominal joint width of between 2 mm and 5 mm;</p> <p>b) for non-modular tiles: so that the difference between the work size and the nominal size is not more than $\pm 2\%$ (max. ± 5 mm).</p> <p>The permissible deviation of the average size for each tile (2 or 4 sides) from the work size (W):</p> <p>7 cm \leq Nominal size N < 15 cm: shall be within $\pm 0,9$mm</p> <p>Nominal size N \geq 15 cm: shall be within $\pm 0,6\%$ and $\pm 2,0$mm</p>	<p>Work size: 598*598mm</p> <p>Average length: 599,2 mm</p> <p>The deviation of the average size from the work size: 0,20% and 1,2mm</p> <p>Average width: 598,7mm</p> <p>The deviation of the average size from the work size: 0,12% and 0,7mm</p>	P

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
Annex G	Thickness a) The thickness shall be specified. b) The permissible deviation, of the average thickness of each tile from the work size thickness: 7 cm <=Nominal size N < 15 cm: shall be within ± 0,5mm Nominal size N>= 15 cm: shall be within ± 5% and ±0,5mm	work size thickness: 30mm Average: 29,8mm The deviation of the average size from the work size: -0.67% and -0,2mm	P
	Straightness of sides The maximum permissible deviation from straightness, related to the corresponding work sizes: 7 cm <=Nominal size N < 15 cm: shall be within ± 0,75mm Nominal size N>= 15 cm: shall be within ± 0,5% and ±1,5mm	Maximum: 0,008% and 0,05mm	P
	Rectangularity The maximum permissible deviation from rectangularity related to the corresponding work sizes: 7 cm <=Nominal size N < 15 cm: shall be within ± 0,75mm Nominal size N>= 15 cm: shall be within ± 0,5% and ±2,0mm	Maximum: 0,009% and 0,06mm	P
	Centre curvature, related to diagonal calculated from the work sizes: 7 cm <=Nominal size N < 15 cm: shall be within ± 0,75mm Nominal size N>= 15 cm: shall be within ± 0,5% and ±2,0mm	Maximum: 0,004% and 0,02mm	P
	Edge curvature, related to the corresponding work sizes: 7 cm <=Nominal size N < 15 cm: shall be within ± 0,75mm Nominal size N>= 15 cm: shall be within ± 0,5% and ±2,0mm	Maximum: 0,003% and 0,02mm	P

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
Annex G	Warpage, related to diagonal calculated from the work sizes: 7 cm ≤ Nominal size N < 15 cm: shall be within ± 0,75mm Nominal size N ≥ 15 cm: shall be within ± 0,5% and ±2,0mm	Maximum: 0,004% and 0,02mm	P
	Surface quality A minimum of 95 % of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles	No major defect was found for both models.	P
	Water absorption Average ≤ 0,5%. Individual maximum 0,6%	Average: 0,12% Maximum: 0.13%	P
	Breaking strength Thickness ≥ 7,5mm, Breaking strength shall be not less than 1300 N; Thickness < 7,5mm, Breaking strength shall be not less than 700 N	Refer to Appendix A	P
	Modulus of rupture Average minimum 35 N/mm ² . Individual minimum 32 N/mm ²	Refer to Appendix A	P
	Abrasion resistance a) Resistance to deep abrasion of unglazed tiles: removed volume: Maximum 175 mm ³ b) Resistance to surface abrasion of glazed tiles intended for use on floors: Report the abrasion class and cycles passed	Failure visible at revolutions 12000 Class: 4	—
	Coefficient of linear thermal expansion Declared value	4,3 x 10 ⁻⁶ K ⁻¹	—
	Thermal shock resistance Pass according to EN ISO 10545-9:	No defect was found after being tested	P
	Crazing resistance For glazed tiles, pass according to EN ISO 10545-11:	No crazing was found after test	P

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
Annex G	Frost resistance Declared value:	No defects appeared on the specimens after the freeze/thaw test. Initial water absorption E_1 :0,12%; Final water absorption E_2 :0,11 %	P
	Slipperiness Testing according to CEN/TS 16165: 2012 Annex C Declared value:	Refer to Appendix A	—
	Bond strength/adhesion Declared value:	No intend use as wall tiles of transit area.	N/A
	Moisture expansion Declared value:	Average: 0,14mm/m Maximum: 0,20mm/m	—
	Small color differences a) Glazed tiles: $\Delta E_{cmc} < 0,75$ b) Unglazed tiles: $\Delta E_{cmc} < 1,0$	The product is not plain color tiles, this test is only applicable to plain colour tiles	N/A
	Impact resistance Declared value:	0,81	—
	Reaction to fire	A1 _{fl} , without testing.	P
	Tactility Declare surface description	Not intended use for tactile paving surfaces	N/A
	Resistance to staining For Glazed tiles: Minimum Class 3: For Unglazed tiles: Declare value.	Glazed tiles: Class 5	P
	Resistance to chemicals Resistance to low concentration of acids and alkalis: Declared value	Class: GLA	—
	Resistance to chemicals Resistance to high concentration of acids and alkalis: Declared value	Class: GHA	—
	Resistance to chemicals Resistance to household chemicals and swimming pool salts Minimum class B:	Class: GA	P

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Test Items, Method and Results:

EN 14411			
Clause	Requirement - Test	Result - Remark	Verdict
5.5.3	Release of dangerous substances a) Cadmium (in mg/dm ²): Declared value b) Lead (in mg/dm ²): Declared value c) other dangerous substances: Declared value	Mass per unit of surface (mg/dm ²): Lead<0.05, Cadmium<0.03 SVHC 197 items: Not detected	—

Test Report

Report Number: 190308061GZU-001

Report Date: 2019-04-17

Appendix A: Test data

Table 1 Test Data for Breaking Strength and Modulus of Rupture

No.	Model	Nominal thickness, mm	Breaking Strength, N		Modulus of Rupture, N/mm ²	
			Average	Minimum	Average	Minimum
1	GN3603A	30	23279	23139	59,4	59,1
2	CR3664A	30	22547	21675	57,9	56,1
3	MC3662A	30	23153	23139	59,3	59,1
4	OS3661A	30	22589	22011	58,0	56,6

Table 2 Test Data for slipperiness

No.	Model	Average pendulum test value, Slider 57	
		Dry condition	Wet condition
1	GN3603A	102	66
2	CR3664A	100	64
3	MC3662A	99	66
4	OS3661A	107	64

Appendix B: Manufacturer's ISO 9001 certification

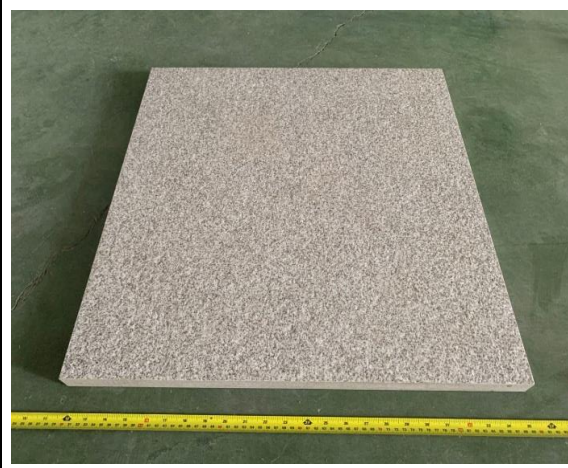


Test Report

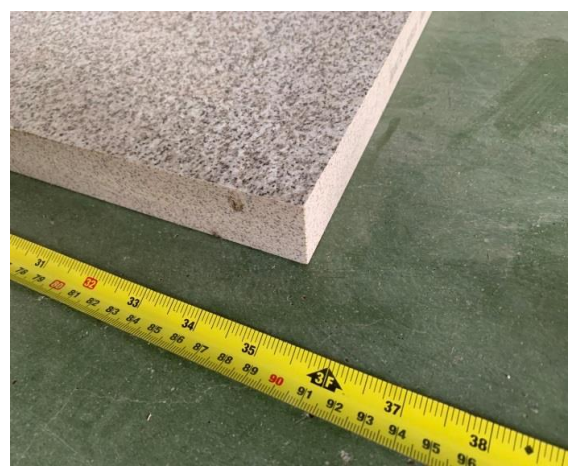
Report Number: 190308061GZU-001

Report Date: 2019-04-17

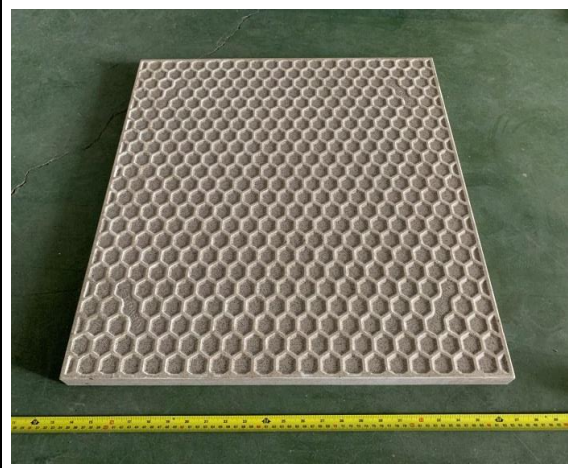
Appendix C: Product photo



C1: Front view of GN3603A



C2: Section view of GN3603A



C3: Back view of GN3603A



C4: Country of origin was marked on sample

Test Report

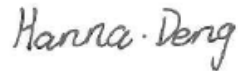
Report Number: 190308061GZU-001

Report Date: 2019-04-17

Appendix D: Revision history

Approved by:

Drafted by:



Name: Kelming Wang

Name: Hanna Deng

Title: Senior Project Engineer

Title: Testing Engineer

Revision:

Report No.	Date	Changes	Author	Reviewer
190308061GZU-001	2019/4/17	First issue	Hanna Deng	Kelming Wang

The End of Report