



TEST REPORT

No. : XMIN170400639CCM

Date : Apr.25, 2017

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CUSTOMER NAME: XIAMEN LUCK STONE CO., LTD
ADDRESS: UNIT 902, NO.241 XIANYUE ROAD, XIAMEN 361012, CHINA

Sample Name : Q8326
Stone Type : ENGINEERED QUARTZ
Manufacturer : XIAMEN LUCK STONE CO., LTD

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

Test Required : Selected test(s) as requested by applicant
Date of Receipt : Apr.17, 2017
Testing Start Date : Apr.17, 2017
Testing End Date : Apr.24, 2017
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

***** To be continued*****

Signed for
SGS-CSTC Standards Technical
Services Co., Ltd. XM Branch

Civi Huang Authorized Signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

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Summary of results:

(Average value)

Test item(s)	Test method(s)	Test result(s)
Absorption by weight	ASTM C97/C97M-15	0.05 %
Density		2366 kg/m ³
Mohs' hardness (polished)	Refer to EN 15771-2010	No scratch: 6 Scratch: 7 Mohs' hardness: 6
Stain resistance test (polished)	Refer to ANSI Z124.6-2007	Total stain resistance value: 59 Maximum individual depth of staining: 0.06mm
Flexural strength	ASTM C880/C880M-15	Dry condition: 41.7 MPa
		Wet condition: 47.1 MPa
Compressive strength	Refer to ASTM C170/C170M-16	Dry condition: 263 MPa
		Wet condition: 259 MPa

***** To be continued*****



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1. Absorption by weight and density

Test Method:

ASTM C97/C97M-15 Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone
Specimens: artificial stone with one face polished, 50mm×50mm×20mm, 5pcs

Test Result:

Specimens identification No.	1	2	3	4	5
Absorption by weight (%)	0.04	0.05	0.05	0.05	0.04
Mean water absorption (%)	0.05				
Density (kg/m ³)	2363	2364	2364	2374	2363
Mean density (kg/m ³)	2366				

2. Mohs' hardness

Test Method:

EN 15771:2010 Vitreous And Porcelain Enamels - Determination Of Surface Scratch Hardness According To The Mohs Scale

Specimens: artificial stone with one face polished, 100mm×100mm×20mm, 3pcs

Testing surface: polished

Test Result:

Specimens identification No.	1	2	3
No scratch	6	6	6
Scratch	7	7	7
Mohs' hardness	6		

Scale:

1- Talc; 2- Gypsum; 3- Calcite; 4- Fluorspar; 5- Apatite; 6- Feldspar; 7- Quartz; 8- Topaz; 9- Corundum; 10- Diamond.

***** To be continued*****



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3. Stain resistance test

Test Method:

Refer to ANSI Z124.6-2007 Plastic Sinks - 5.2 Stain resistance test

Specimens: artificial stone with one face polished, 100mm×100mm×20mm, 11pcs

Testing surface: polished

Test Result:

Reagents	Test results			
	(Covered)		(Uncovered)	
	Individual stain rating	Depth removed	Individual stain rating	Depth removed
Black Crayon	1	/	1	/
Black Liquid Shoe Polish	5	0.06mm	5	0.04mm
Blue Washable Ink	5	0.04mm	5	0.04mm
Gentian Violet Solution	5	0.06mm	5	0.04mm
Beet Juice	1	/	1	/
Grape Juice	1	/	1	/
Lipstick	2	/	2	/
Hair Dye	4	/	3	/
Iodine solution	5	0.04mm	5	0.02mm
Wet Tea Bag	1	/	1	/
Total stain resistance rating	59			
Maximum individual depth of staining	0.06mm			

Note: The requirement in ANSI Z124.6-2007 for total stain resistance rating shall be ≤ 64 and maximum individual depth of staining shall be 0.127mm. According to clause 5.2.1.1~5.2.1.5, summary of individual stain rating as below:

- 1 - non-staining, removable by tap water;
- 2 - removable by alcohol or naphtha;
- 3 - removable by first application of standard scouring powder;
- 4 - removable by two standard scouring powder scrubbing;
- 5 - Any specimen with stain remaining after the aforementioned cleanings.

***** To be continued*****



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4. Flexural strength

Test Method:

ASTM C880/C880M-15 Standard Test Method for Flexural Strength of Dimension Stone

Specimens: artificial stone with one face polished, 350mm×100mm×20mm, 10pcs

Test Result:

Dry Condition:

Specimens identification No.	1	2	3	4	5
Individual flexural strength value (MPa)	43.4	42.1	37.9	44.3	40.6
Mean flexural strength value (MPa)	41.7				
Standard deviation (MPa)	2.6				

Wet Condition:

Specimens identification No.	1	2	3	4	5
Individual flexural strength value (MPa)	46.3	47.6	47.5	48.3	46.0
Mean flexural strength value (MPa)	47.1				
Standard deviation (MPa)	1.0				

***** To be continued*****



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5. Compressive strength

Test Method:

Refer to ASTM C170/C170M-16 Standard Test Method for Compressive Strength of Dimension Stone

Specimens: artificial stone with one face polished, 50mm×50mm×20mm, 10pcs

Test Result:

Dry Condition:

Specimens identification No.	1	2	3	4	5
Individual compressive strength value (MPa)	262	258	267	265	265
Mean compressive strength value (MPa)	263				
Standard deviation (MPa)	4				

Wet Condition:

Specimens identification No.	1	2	3	4	5
Individual compressive strength value (MPa)	261	253	262	259	260
Mean compressive strength value (MPa)	259				
Standard deviation (MPa)	4				

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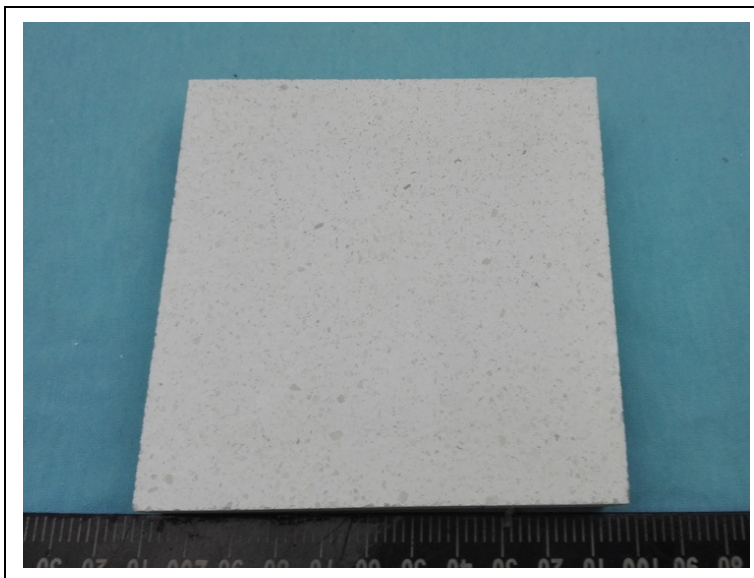
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Specimen photograph:



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*****End of report*****



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