



## TEST REPORT

No. : XMCCM160801178

Date : Sep.02, 2016

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XIAMEN EXCELLENT STONE CO.,LTD  
YONGQUANSHAN INDUSTRIAL ZONE, SHUITOU TOWN, FUJIAN, CHINA

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : MIDDLE CARRARA  
Test Required : Selected test(s) as requested by applicant  
Date of Receipt : Aug.25, 2016  
Test Period : Aug.25, 2016 to Sep.02, 2016

Test Result(s) : For further details, please refer to the following page(s)

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

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

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 test results: (Average of results)

Test item(s)	Test method(s)	Test result(s)
Absorption by weight	Refer to ASTM C97/C97M-15	0.03%
Density		2287 kg/m <sup>3</sup>
Mohs' hardness (polished)	Refer to EN 101:1991	No scratch: 7 Scratch: 8 Mohs' hardness:7
Compressive strength	Refer to ASTM C170/C170M-15b	Dry condition: 234 MPa
		Wet condition: 221 MPa
Stain resistance test (polished)	Refer to ANSI Z124.6-2007	Total stain resistance value:56 Maximum individual depth of staining: 0.04mm
Chemical resistance test (polished)	Refer to ANSI Z124.6-2007	Unaffected

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



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## 1. Absorption by weight and density

### Test Method:

Refer to 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 (%)	0.03	0.03	0.03	0.04	0.03
Mean water absorption (%)	0.03				
Density (kg/m <sup>3</sup> )	2288	2288	2288	2286	2287
Mean density (kg/m <sup>3</sup> )	2287				

## 2. Mohs' hardness

### Test Method:

Refer to EN 101:1991 Ceramic tiles: determination of scratch hardness of surface according to Mohs

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

Testing surface: polished

### Test Result:

Specimens identification No.	1	2	3
No scratch	7	7	7
Scratch	8	8	8
Mohs' hardness	7		

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. Compressive strength

**Test Method:**

Refer to ASTM C170/C170M-15b 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)	253	231	229	230	227
Mean compressive strength value (MPa)	234				
Standard deviation(MPa)	11				

Wet Condition:

Specimens identification No.	1	2	3	4	5
Individual compressive strength value (MPa)	225	223	219	219	217
Mean compressive strength value (MPa)	221				
Standard deviation(MPa)	4				

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



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## 4. 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, 11 pcs

Testing surface: polished

### Test Result:

Reagents	Test results			
	(Covered)		(Uncovered)	
	Individual stain rating	Depth removed	Individual stain rating	Depth removed
Black Crayon	2	/	2	/
Black Liquid Shoe Polish	5	0.02mm	5	0.02mm
Blue Washable Ink	4	/	4	/
Gentian Violet Solution	5	0.04mm	5	0.02mm
Beet Juice	1	/	1	/
Grape Juice	1	/	1	/
Lipstick	2	/	2	/
Hair Dye	2	/	2	/
Iodine solution	5	0.04mm	5	0.02mm
Wet Tea Bag	1	/	1	/
Total stain resistance rating	56			
Maximum individual depth of staining	0.04mm			

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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## 5. Chemical resistance test

### Test Method:

Refer to ANSI Z124.6-2007 Plastic Sinks - 5.5 Chemical resistance test

Specimens: artificial stone with one face polished, 100mm×100mm×20mm, 15pcs

Testing surface: polished

### Test Result:

Reagents	Test results	
	(covered)	(uncovered)
Naphtha	Unaffected	Unaffected
Ethyl alcohol	Unaffected	Unaffected
Amyl acetate	Unaffected	Unaffected
Commercial household ammonia (10% V/V)	Unaffected	Unaffected
Citric acid (10%)	Unaffected	Unaffected
Urea (6%)	Unaffected	Unaffected
Hydrogen peroxide solution (3%)	Unaffected	Unaffected
Concentrated sodium hypochlorite solution (effective chlorine ≥8%)	Unaffected	Unaffected
Toluene	Unaffected	Unaffected
Ethyl acetate	Unaffected	Unaffected
Lye solution (2% sodium hydroxide)	Unaffected	Unaffected
Acetone	Unaffected	Unaffected
Trisodium phosphate (5%)	Unaffected	Unaffected
Vinegar	Unaffected	Unaffected
Pine oil	Unaffected	Unaffected

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



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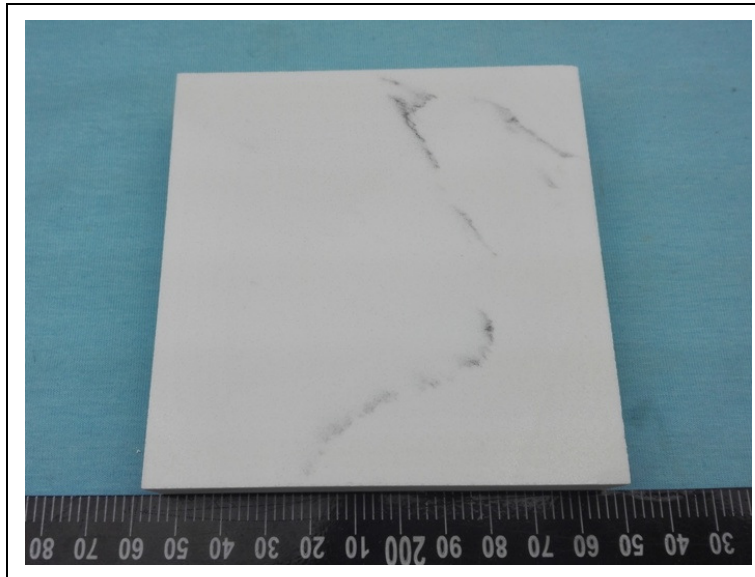
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Specimen photograph:



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



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