TEST REPORT

No. : XMIN2004002408CM
Date : Apr 29, 2020
Page: 1 of 6

scan to see the report
XMIN2004002408CM

CUSTOMER NAME: FOSHAN OPALY COMPOSITE MATERIALS CO., LTD.

ADDRESS: NO.12-3, A AREA, JINGKOU PARK, CENTRAL SCIENCE AND TECHNOLOGY INDUSTRIAL ZONE, SANSHUI DISTRICT, FOSHAN, GUANGDONG P.R. CHINA

Sample Name	:	SOLID SURFACE SHEET
Place of origin	:	CHINA
Manufacturer	:	OPALY

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.

****

Date of Receipt	:	Apr 13, 2020
Testing Start Date	:	Apr 13, 2020
Testing End Date	:	Apr 29, 2020
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)

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

Civi Huang
Authorized signatory

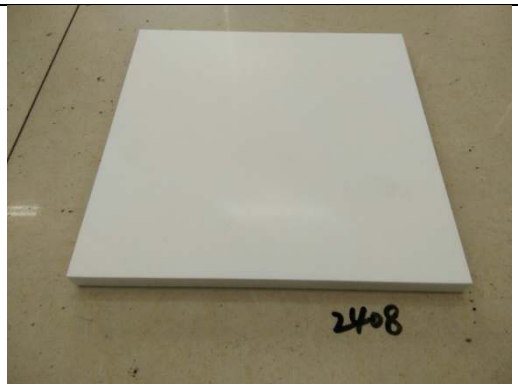
No.31 Xianghong Road, Xiang'An Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国•福建•厦门•火炬（翔安）产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

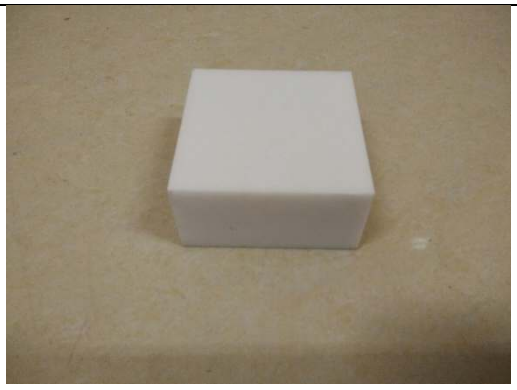
Summary of Results:

No.	Test Item	Test Method	Result
1	Abrasion Resistance	Refer to ASTM C241/C241M-15ε1	Abrasion resistance: 51
2	Flexural Strength	Refer to ASTM C880/C880M-18	Dry Condition:47.4MPa Wet Condition: 46.5MPa
3	Compressive Strength	Refer to ASTM C170/C170M-17	Dry Condition: 144MPa Wet Condition: 135MPa
4	Absorption and Bulk Specific Gravity	Refer to ASTM C97/C97M-18	Water absorption : 0.12% Bulk specific gravity: 1789kg/m^3
5	Modulus of Rupture	Refer to ASTM C99/C99M-18	Dry Condition:54.6MPa Wet Condition: 53.3MPa
6	Static Coefficient of Friction	Refer to ASTM C1028-07$^{\varepsilon 1}$	Dry Condition:0.79 Wet Condition: 0.68
7	Thermal expansion	Refer to ASTM C531-00(2012)	52.8×10^{-6}/°C

Original Sample Photo:



Sample



Sample for test item 3

No.31 Xianghong Road, Xiang'An Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国•福建•厦门•火炬（翔安）产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

1.Test Item: Abrasion Resistance

Sample Description: See photo

Test Method: Refer to ASTM C241/C241M-15$^{\varepsilon 1}$

Test Condition:

Specimen: 50mm×50mm×20mm, 3pcs

Condition: ① 60±2℃, 48h→coolling, 2h→Abrasion resistance test→② Distilled water, 22±2℃, 1h

Load: 2000g

Revolutions: 225

Test Result:

Specimens identification No.	1	2	3
Abrasion resistance	46	49	58
Mean abrasion resistance	51		

2.Test Item: Flexural Strength

Sample Description: See photo

Test Method: Refer to ASTM C880/C880M−18

Test Condition:

Specimen: 350mm×100mm×12mm

Dry Condition: Dry in an oven at 60±2℃ for 48h→cool them to room temperature in a desiccators

Wet Condition: Immerse in distilled water at 22±2℃ for 48h

Support Span: 120mm

Testing Speed: 4MPa/min

Test Result:

Specimen No.	1	2	3	4	5	Ave.
Flexural strength, (Dry Condition) MPa	48.4	46.2	46.7	47.7	48.2	47.4
Flexural strength, (Wet Condition) MPa	47.5	46.8	46.7	46.3	45.1	46.5

No.31 Xianghong Road, Xiang'An Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国•福建•厦门•火炬（翔安）产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

3.Test Item: Compressive Strength

Sample Description: See photo

Test Method: Refer to ASTM C170/C170M-17

Test Condition:

Specimen: 50mm×50mm×25mm

Dry Condition: Dry in an oven at 60±2℃ for 48h→cool them to room temperature in a desiccators

Wet Condition: Immerse in distilled water at 22±2℃ for 48h

Testing speed: 0.5MPa/s

Test Result:

Specimen No.	1	2	3	4	5	Ave.
Compressive strength, Dry Condition (MPa)	154	153	134	127	152	144
Compressive strength, Wet Condition (MPa)	143	129	129	128	145	135

4.Test Item: Water Absorption and Bulk Specific Gravity

Sample Description: See photo

Test Method: Refer to ASTM C97/C97M-18

Test Condition:

Specimen: 50mm×50mm×12mm

Condition: Dry in an oven at 60±2℃ for 48h→Cool down in a desiccators for 30min→Immerse in distilled water at 22±2℃ for 48h

Test Result:

Water absorption : 0.12%

Bulk specific gravity: 1789kg/m^3

No.31 Xianghong Road, Xiang'An Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国•福建•厦门•火炬（翔安）产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

5.Test Item: Modulus of Rupture

Sample Description: See photo

Test Method: Refer to ASTM C99/C99M-18

Test Condition:

Specimen: 200mm×100mm×12mm

Dry Condition: Dry in an oven at 60±2℃ for 48h→cool them to room temperature in a desiccators

Wet Condition: Immerse in distilled water at 22±2℃ for 48h

Testing Speed: 5000N/min

Span: 180mm

Test Result:

Specimen No.	1	2	3	4	5	Ave.
Modulus of rupture, (Dry condition) MPa	55.2	56.4	54.1	52.3	55.2	54.6
Modulus of rupture, (Wet condition) MPa	52.9	54.9	52.2	53.9	52.5	53.3

6.Test Item: Static Coefficient of Friction

Sample Description: See photo

Test Method: Refer to ASTM C1028-07$^{\varepsilon 1}$ Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method

Test Condition:

Specimen: 200mm×200mm×12mm, 3pcs

Contact area: 75×75 (mm^2)

Load: 22.80kg

Test Result:

Test item(s)	Test result(s)
Static Coefficient of Friction for Dry Surface	0.79
Static Coefficient of Friction for Wet Surface	0.68

No.31 Xianghong Road, Xiang'An Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国•福建•厦门•火炬（翔安）产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

7.Test Item: Linear thermal expansion coefficient

Sample Description: See photo

Test Method: Refer to ASTM C531-00(2012)

Test Condition:

Specimen: 250mm×25mm×12mm, 4pcs

High temperature: 100°C, 16h

Low temperature: 23°C, 16h

Test Result:

Specimen No.	1	2	3	4
Linear thermal expansion coefficient (10^{-6}/°C)	56.7	48.4	52.1	54.1
Mean value (10^{-6}/°C)	52.8			

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

No.31 Xianghong Road, Xiang'An Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国•福建•厦门•火炬（翔安）产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com