Test Report

TAIZHOU ZHONGSHENG GLASS FIBER PRODUCTS CO., LTD.

DALUN INDUSTRIAL CONCENTRATION ZONE, JIANGYAN DISTRICT, TAIZHOU CITY JIANGSU PROVINCE, CHINA

Sample Description: HIGH SILICON OXYGEN CLOTH
Color: WHITE
Thickness: 0.75mm
Composition: FIBERGLASS FABRIC+ SILICONE COATING
Density: 1100gsm
Manufacturer: TAIZHOU ZHONGSHENG GLASS FIBER PRODUCTS CO., LTD.
Supplier: TAIZHOU ZHONGSHENG GLASS FIBER PRODUCTS CO., LTD.
End use application: FIREPROOF TARP
Tested surface: ONE SURFACE

The above data and information was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion.

****

Sample Receiving Date: Mar.01, 2024
Test Performing Date: Mar.01, 2024 to Mar.18, 2024

Test Requested:

EN 13501-1:2018 Fire classification of construction products and building elements—Part 1: Classification using data from reaction to fire tests.

Test Results: -- See attached sheet --

Signed for and on behalf of
Shunde Branch
SGS-CSTC Co., Ltd.

Scan to see the report
SDFS2403001247FF
Verification:
check.sgsonline.com.cn

Daniel Guan
Approved signatory

检验检测专用章
Inspection & Testing Services
SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2/F., Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300 t (86-757) 22805888 www.sgsgroup.com.cn
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

I. Test conducted

This test is conducted as per EN 13501-1:2018 Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests. And the test methods as following:

1. EN 13823:2020+A1:2022 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.
2. EN ISO 1716:2010 Reaction to fire tests for building products — Determination of the gross heat of combustion (calorific value).

II. Details of classified product

Sample Description	Glass fiber
Thickness	0.75mm
Color	White
Area density	640g/m^2

Mounting and fixing:

The test specimens are fixed mechanically in the trolley, champed at the top and the bottom. No joint in the long wing of the specimens.

III. Test results

Test methods	Parameter		Number of tests	Results
EN 13823	$FIGRA_{0.2MJ}$ (W/s)		3	0.0
	$FIGRA_{0.4MJ}$ (W/s)			0.0
	Whether lateral flame spread (LFS) to the edge of specimen (Yes/No)			No
	THR_{600s} (MJ)			0.8
	SMOGRA (m^2/s^2)			0.3
	TSP_{600s} (m^2)			6.3
	Flaming particles or droplets (Yes/No)			No
EN ISO 1716	Homogeneous products	PCS≤3.0MJ/kg [a]	3	0

Note:

$FIGRA_{0.2MJ}$ - Fire growth rate index at THR threshold of 0,2 MJ [W/s]

$FIGRA_{0.4MJ}$ - Fire growth rate index at THR threshold of 0,4 MJ [W/s]

THR_{600s} -Total heat release within 600 s [MJ]

SMOGRA - Smoke growth rate [m^2/s^2]

TSP_{600s}- Total smoke production within 600 s [m^2]

检验检测专用章 Inspection & Testing Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2F., Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300 t (86-757) 22805888 www.sgsgroup.com.cn

中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

PCS — Gross heat of combustion [MJ/kg or MJ/m^2]

For the means of superscript a, b, d and e, please refer to the Annex A.

IV. Classification and field of application

a) Reference of classification

This classification has been carried out in accordance with **EN 13501-1:2018.**

b) Classification

The product, High Silicon Oxygen Cloth (as described by the sponsor), in relation to its reaction to fire behaviour is classified:

Fire behaviour		Smoke production			Flaming droplets	
A2	—	s	1	,	d	0

Reaction to fire classification: A2—s1, d0

Remark: The classes with their corresponding fire performance are given in Annex A.

c) Field of application

This classification is valid for the following product parameters:

--- Characteristics as described in section II of this test reports.

This classification for the submitted sample is valid for the following end use condition:

--- Without any substrates

--- With mechanically fixing

--- No joint

Limitations

This classification document does not represent type approval or certification of the product.

Warning:

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

检验检测专用章 Inspection & Testing Services

SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

1-2/F., Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300 t (86-757) 22805888 www.sgsgroup.com.cn

中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

Statement:

This declaration of conformity is only based on the result of this laboratory activity, the impact of the uncertainty of the results was not included.

Note: This document cannot be reproduced except full, without prior written approval of the Company.

Annex A

Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products

Class	Test method(s)		Classification criteria	Additional classification
A1	EN ISO 1182 [a]	and	$\triangle T$≤30℃, and $\triangle m$≤50%, and t_f=0(i.e. no sustained flaming)	-
	EN ISO 1716		*PCS*≤2.0MJ/kg [a] and *PCS*≤2.0MJ/kg [b c] and *PCS*≤1.4MJ/m² [d] and *PCS*≤2.0MJ/kg [e]	-
A2	EN ISO 1182 [a] or	and	$\triangle T$≤50℃, and $\triangle m$≤50%, and t_f≤20 s	-
	EN ISO 1716		*PCS*≤3.0MJ/kg [a] and *PCS*≤4.0MJ/m² [b] and *PCS*≤4.0MJ/m² [d] and *PCS*≤3.0MJ/kg [e]	-
	EN 13823		$FIGRA_{0.2MJ}$≤120W/s and *LFS*＜edge of specimen and THR_{600s}≤7.5MJ	Smoke production [f] and Flaming droplets/particles [g]
B	EN 13823	and	$FIGRA_{0.2MJ}$≤120W/s and *LFS*＜edge of specimen and THR_{600s}≤7.5MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i] Exposure =30s		*Fs*≤150mm within 60s	
C	EN 13823	and	$FIGRA_{0.4MJ}$≤250W/s and *LFS*＜edge of specimen and THR_{600s}≤15MJ	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i] Exposure=30s		*Fs*≤150mm within 60 s	
D	EN 13823	and	$FIGRA_{0.4MJ}$≤750W/s	Smoke production [f] and Flaming droplets/particles [g]
	EN ISO 11925-2 [i] Exposure=30s		*Fs*≤150mm within 60 s	
E	EN ISO 11925-2[i] Exposure =15s		*Fs*≤150mm within 20 s	flaming droplets/particles [h]
F	EN ISO 11925-2[i] Exposure = 15 s		*Fs*＞150mm within 20 s	

检验检测专用章
Inspection & Testing Services
SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
1-2/F., Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300 t (86-757) 22805888 www.sgsgroup.com.cn
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86-757) 22805888 sgs.china@sgs.com

[a] For homogeneous products and substantial components of non-homogeneous products.
[b] For any external non-substantial component of non-homogeneous products.
[c] Alternatively, any external non-substantial component having a PCS ≤ 2,0 MJ/m^2 , provided that the product satisfies the following criteria of EN 13823: FIGRA ≤ 20 W/s, and LFS < edge of specimen, and THR_{600s} ≤ 4,0 MJ, and s1, and d0.
[d] For any internal non-substantial component of non-homogeneous products.
[e] For the product as a whole.
[f] s1 = SMOGRA ≤ 30m^2/s^2 and TSP_{600s} ≤ 50m^2 ; s2 = SMOGRA ≤ 180m^2/s^2 and TSP_{600s} ≤ 200m^2; s3 = not s1 or s2
[g] d0 = No flaming droplets/ particles in EN 13823 within 600 s;
d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;
d2 = not d0 or d1.
Ignition of the paper in EN ISO 11925-2 results in a d2 classification.
[h] Pass = no ignition of the paper (no classification);
Fail = ignition of the paper (d2 classification).
i Under conditions of surface flame attack and, if appropriate to the end–use application of the product, edge flame attack.

Photo Appendix:

Before test

After test

SGS authenticate the photo on original report only

End of Report

检验检测专用章 Inspection & Testing Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com
1-2/F., Building 1, European Industrial Park, No.1, Shunhe South Road, Wusha, Daliang, Shunde District, Foshan, Guangdong, China 528300 t (86–757) 22805888 www.sgsgroup.com.cn
中国·广东·佛山市顺德区大良街道办事处五沙社区居民委员会顺和南路1号欧洲工业园一号厂房首层、二层 邮编: 528300 t (86–757) 22805888 sgs.china@sgs.com