

## Test Report

No. AJFS1808007536FF

Date: AUG.17, 2018

Page 1 of 6

VIDOFLEX

KIRYAT ANAVIM ISRAEL 9083300

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

**Sample Description:** NBR THERMAL INSULATION FOAM

**SGS Ref No.:** 14225608

**Style/Item No.:** /

**Material and Mark:** Vidoflex®1163CW

**Product Specification:** 22MM(ID)\*25MM(TK)

### Test Requested:

EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements—Part 1:  
Classification using data from reaction to fire tests, class B<sub>L</sub>.

**Test Results:** -- See attached sheet --

### Test Period:

Sample Receiving Date : AUG.01, 2018

Test Performing Date : AUG.01, 2018 TO AUG.14, 2018

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

Allen Zou  
Technical Manager



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 <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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

SGS-CSTC Inspection & Testing Services Co., Ltd.  
Anji Branch Hardwares

No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgsgroup.com.cn  
中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编:313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

**I. Test conducted**

This test is conducted as per EN 13501-1:2007+A1:2009 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 13823:2010+A1:2014 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.
2. EN ISO 11925-2:2010+Cor1:2011 Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test.

**II. Details of classified product**

a) Nature and end use application

The product “NBR Thermal Insulation Foam” is defined as building material. It is used for: the insulation of HVAC & refrigeration systems.

b) Description

The details of the product given above have been prepared from information provided by the sponsor of the test.

Description	NBR Thermal Insulation Foam
Color	Black
Thickness	Wall thickness: 25.0mm Inner diameter: 23.0mm

Mounting and fixing:

Fiber cement board, with its density approximate 900kg/m<sup>3</sup>, thickness approximate 9mm, is as the backing board. The test specimens were inset steel pipe and free standing in the trolley. The distance between the specimen and back board is 25mm. The distance between the pipe and pipe is 25mm.

**III. Test results**

Test method	Parameter	Number of tests	Results
EN 13823	FIGRA <sub>0,2MJ</sub> (W/s)	3	28.2
	FIGRA <sub>0,4MJ</sub> (W/s)		28.2
	LFS < edge of specimen		Yes
	THR <sub>600s</sub> (MJ)		1.8
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		291.1
	TSP <sub>600s</sub> (m <sup>2</sup> )		307.7
	Flaming particles or droplets		No

To be continued...



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 <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein 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  
 No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgs.com.cn  
 中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编:313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

Test method	Parameter	Specimen number	Results
EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150$ mm	6	Yes
	Ignition of the filter paper		No

**IV. Classification and direct field of application**

This classification has been carried out in accordance with **EN 13501-1:2007+A1:2009**.

a) Classification

The product, NBR Thermal Insulation Foam, classification is as following,

Fire behaviour		Smoke production			Flaming droplets	
B <sub>L</sub>	—	s	2	,	d	0

**Reaction to fire classification: B<sub>L</sub>—s2, d0**

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

b) Field of application

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

--- Free standing

This classification is valid for the following product parameters:

---Characteristics of various layers identical to those as described in § II b) of this test reports.

**Statement:** The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

**Warning:**

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

The test laboratory has, therefore, play no part in sampling the product for the test, although it holds appropriate references to the manufacturer’s factory production control that is aimed to be relevant to the samples tested and that will provide for their traceability.

To be continued...



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 <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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  
 No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgsgroup.com.cn  
 中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编:313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

**Annex A**

Classes of reaction to fire performance for linear pipe thermal insulation products

Class	Test method(s)	Classification criteria	Additional classification
A1 <sub>L</sub>	EN ISO 1182 <sup>a</sup> and	$\Delta T \leq 30^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2.0\text{MJ/kg}$ <sup>a</sup> and $PCS \leq 2.0\text{MJ/kg}$ <sup>b</sup> and $PCS \leq 1.4\text{MJ/m}^2$ <sup>c</sup> and $PCS \leq 2.0\text{MJ/kg}$ <sup>d</sup>	-
A2 <sub>L</sub>	EN ISO 1182 <sup>a</sup> or	$\Delta T \leq 50^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f \leq 20\text{ s}$	-
	and EN ISO 1716	$PCS \leq 3.0\text{MJ/kg}$ <sup>a</sup> and $PCS \leq 4.0\text{MJ/m}^2$ <sup>b</sup> and $PCS \leq 4.0\text{MJ/m}^2$ <sup>c</sup> and $PCS \leq 3.0\text{MJ/kg}$ <sup>d</sup>	-
	EN 13823	$FIGRA \leq 270\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production <sup>e</sup> and Flaming droplets/particles <sup>f</sup>
B <sub>L</sub>	EN 13823 and	$FIGRA \leq 270\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production <sup>e</sup> and Flaming droplets/particles <sup>f</sup>
	EN ISO 11925-2 <sup>h</sup> Exposure = 30s	within 60s $F_s \leq 150\text{mm}$	
C <sub>L</sub>	EN 13823 and	$FIGRA \leq 460\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 15\text{MJ}$	Smoke production <sup>e</sup> and Flaming droplets/particles <sup>f</sup>
	EN ISO 11925-2 <sup>h</sup> Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	
D <sub>L</sub>	EN 13823 and	$FIGRA \leq 2100\text{W/s}$ $THR_{600s} \leq 100\text{MJ}$	Smoke production <sup>e</sup> and Flaming droplets/particles <sup>f</sup>
	EN ISO 11925-2 <sup>h</sup> Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	
E <sub>L</sub>	EN ISO 11925-2 <sup>h</sup> Exposure = 15s	$F_s \leq 150\text{mm}$ within 20 s	flaming droplets/particles <sup>g</sup>

To be continued...



SGS-CSTC (China) Technical Services Co., Ltd.  
Anji Branch Hardwares

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 <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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  
No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgs.com.cn  
中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编:313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

F <sub>L</sub>	No performance determined
<p>a For homogeneous products and substantial components of non-homogeneous products.          b For any external non-substantial component of non-homogeneous products.          c For any internal non-substantial component of non-homogeneous products.          d For the product as a whole.          e <b>s1</b> = SMOGRA ≤ 105 m<sup>2</sup>/s<sup>2</sup> and TSP600s ≤ 250 m<sup>2</sup> ; <b>s2</b> = SMOGRA ≤ 580 m<sup>2</sup>/s<sup>2</sup> and TSP600s ≤ 1 600 m<sup>2</sup> ;  <b>s3</b> = not s1 or s2          f <b>d0</b> = No flaming droplets/ particles in EN 13823 within 600 s;  <b>d1</b> = No flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;  <b>d2</b> = not d0 or d1.          Ignition of the paper in EN ISO 11925-2 results in a d2 classification.          g Pass = no ignition of the paper (no classification);          Fail = ignition of the paper (<b>d2</b> classification).          h Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.</p>	

To be continued...



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 <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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  
 No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgsgroup.com.cn  
 中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编:313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

Photo Appendix:



SGS authenticate the photo on original report only

\*\*\*End of Report\*\*\*



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 <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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  
 No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgs.com.cn  
 中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编:313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com