



中国认可
国际互认
检测
TESTING
CNAS L4743

Test Report

No. AJFS2008007363FF-01

Date: SEP.14, 2020

Page 1 of 7

ICOOL NINGBO CO., LTD.

175 GUANGYUAN ROAD, JIANGBEI DISTRICT, NINGBO, ZHEJIANG CHINA

THE TEST REPORT IS TO SUPERSEDE THE TEST REPORT No.:AJFS2008007363FF, DATE:SEP.14, 2020.

The following sample(s) 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. Results apply to the sample as received.

Sample Description: INSULATED PIPE FOR AIR CONDITIONERS

Color: WHITE

Style/Item No.: /

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 --

Test Period:

Sample Receiving Date : AUG.27, 2020

Test Performing Date : AUG.27, 2020 TO SEP.09, 2020

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

Allen Zou
Lab Manager

scan to see the report



AJFS2008007363FF-01



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·安吉县阳光工业园区二区阳光大道301号 邮编: 313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)

Test Report

No. AJFS2008007363FF-01

Date: SEP.14, 2020

Page 2 of 7

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 13823:2010+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 “Insulated pipe for air conditioners” is defined as decorative sheet. Its end use application: “Insulated copper tube for air conditioning and refrigeration system”.

b) Description

Description	Insulated pipe for air conditioners
Color	White
Specimens information	Wall thickness: 11.0mm; Internal diameter: 20.5mm; The space between two specimens: 25mm; The number of specimens in each test: 21
Steel pipe	Provided by client
Steel pipe size	Length: 1.5m; Overall diameter: 21mm; Wall thickness: 2.5mm

Mounting and fixing:

The test specimens were inset copper pipe and free standing in the trolley. The pipes were mounted in such a way that there is a gap of 25 mm between the outside pipe insulation surfaces of the adjacent pipe and between the outside insulation surface and the backing board.

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-Document.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

Member of the SGS Group (SGS SA)

III. Test results

Test methods	Parameters	Number of tests	Results
EN 13823	FIGRA _{0.2MJ} (W/s)	3	31.1
	FIGRA _{0.4MJ} (W/s)		31.1
	Whether lateral flame spread (LFS) to the edge of specimen (Yes/No)		Yes
	THR _{600s} (MJ)		3.5
	SMOGR _A (m ² /s ²)		1.8
	TSP _{600s} (m ²)		18.9
	Flaming particles or droplets (Yes/No)		No
EN ISO 11925-2 Exposure = 30 s	Whether vertical flame spread (Fs) in excess of 150 mm within 60s (Yes/No)	6	No
	Ignition of the filter paper (Yes/No)		No

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, Insulated pipe for air conditioners, in relation to its reaction to fire behaviour is classified:

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

Reaction to fire classification: B_L – s1, d0

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

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.sgs.com.cn
中国·浙江·安吉县阳光工业园区二区阳光大道301号 邮编: 313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

Test Report

No. AJFS2008007363FF-01

Date: SEP.14, 2020

Page 4 of 7

c) Field of application

This classification is valid for the following end use applications:

- Free standing
- A gap of 25 mm

This classification is valid for the following product parameters:

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

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.

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-Document.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

Member of the SGS Group (SGS SA)

Test Report

No. AJFS2008007363FF-01

Date: SEP.14, 2020

Page 5 of 7

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

Class	Test method(s)	Classification criteria	Additional classification
A1 _L	EN ISO 1182 ^a 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	$PCS \leq 2.0\text{MJ/kg}$ ^a and $PCS \leq 2.0\text{MJ/kg}$ ^b and $PCS \leq 1.4\text{MJ/m}^2$ ^c and $PCS \leq 2.0\text{MJ/kg}$ ^d	-
A2 _L	EN ISO 1182 ^a or	$\Delta T \leq 50^{\circ}\text{C}$, and $\Delta m \leq 50\%$, and $t_f \leq 20\text{ s}$	-
	and EN ISO 1716	$PCS \leq 3.0\text{MJ/kg}$ ^a and $PCS \leq 4.0\text{MJ/m}^2$ ^b and $PCS \leq 4.0\text{MJ/m}^2$ ^c and $PCS \leq 3.0\text{MJ/kg}$ ^d	-
	EN 13823	$FIGRA \leq 270\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production ^e and Flaming droplets/particles ^f
B _L	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 ^e and Flaming droplets/particles ^f
	EN ISO 11925-2 ^h Exposure = 30s	within 60s $F_s \leq 150\text{mm}$	
C _L	EN 13823 and	$FIGRA \leq 460\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 15\text{MJ}$	Smoke production ^e and Flaming droplets/particles ^f
	EN ISO 11925-2 ^h Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	
D _L	EN 13823 and	$FIGRA \leq 2100\text{W/s}$ $THR_{600s} \leq 100\text{MJ}$	Smoke production ^e and Flaming droplets/particles ^f
	EN ISO 11925-2 ^h Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	
E _L	EN ISO 11925-2 ^h Exposure = 15s	$F_s \leq 150\text{mm}$ within 20 s	flaming droplets/particles ^g
F _L	EN ISO 11925-2 ^h Exposure = 15s	$F_s > 150\text{mm}$ within 20 s	

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·安吉县阳光工业园区二区阳光大道301号 邮编: 313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

Member of the SGS Group (SGS SA)

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 **s1** = $SMOGR \leq 105 \text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 250 \text{ m}^2$; **s2** = $SMOGR \leq 580 \text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 1\,600 \text{ m}^2$;
s3 = not s1 or s2
 f **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.
 g Pass = no ignition of the paper (no classification);
 Fail = ignition of the paper (**d2** classification).
 h Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.

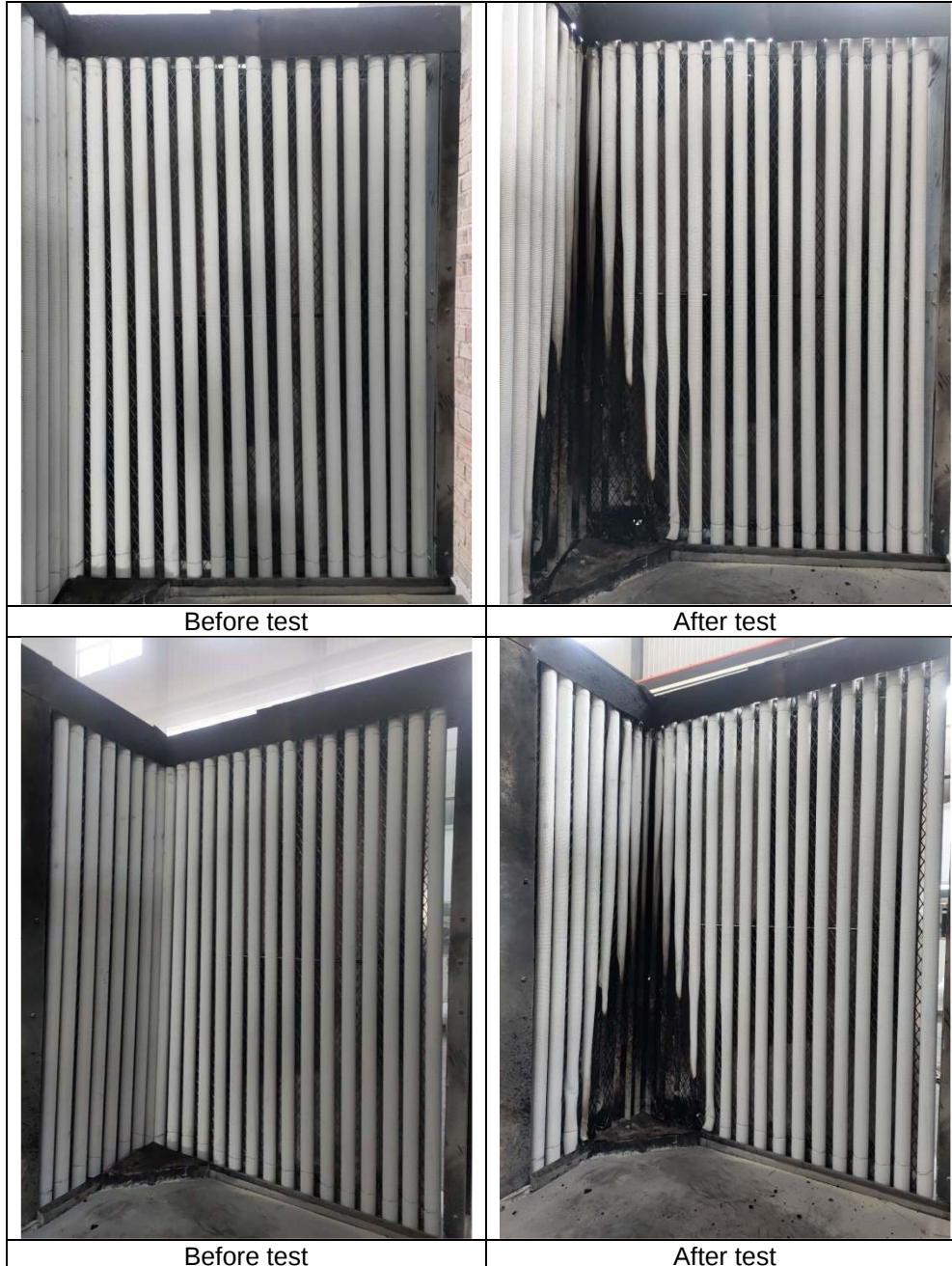
To be continued...



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-Document.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-Document.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