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TESTING
CNAS L4743

Test Report

Report No.: AJFS2208006149FF

Date: SEP.26, 2022

Page 1 of 6

WASCO HOLDING

ECOFACORIJ 51, 7325 WC APELDOORN

Sample Name: INSULATION TUBE FOR AIR CONDITIONING WITH INTAGLIO SURFACE

SGS Ref No.: SHPL2207002288SC

Spec.: ϕ 22 in 25mm THICKNESS

Style/Item No.: /

The above 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 arising therefrom. Results apply to the sample as received.

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.02, 2022

Test Performing Date : AUG.02, 2022 TO AUG.15, 2022

Signed for and on behalf of

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

Allen Zou
Approved Signatory

scan to see the report



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Anji Branch Fire Technology Service

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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 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.
2. EN ISO 11925-2:2020 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

Sample description	Insulation Tube for air conditioning with intaglio surface (provided by client)
Color	White
Specimens information	Wall thickness: 25mm Internal diameter: 22mm The space between two specimens: 25mm The number of specimens in each test: 27
Steel pipe	Provided by client
Steel pipe size	Length: 1.5m; Overall diameter: 6.2mm; Wall thickness: 0.9mm

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 25mm between the outside pipe insulation surface of the adjacent pipe and between the outside insulation surface and the backing board.

III. Test results

Test methods	Parameters	Number of tests	Results
EN 13823	FIGRA _{0.2MJ} (W/s)	3	101.5
	FIGRA _{0.4MJ} (W/s)		101.5
	Whether lateral flame spread (LFS) to the edge of specimen (Yes/No)		No
	THR _{600s} (MJ)		4.5
	SMOGR _A (m ² /s ²)		10.9
	TSP _{600s} (m ²)		12.2
	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



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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, Insulation Tube for air conditioning with intaglio surface (provided by client), 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.

c) Field of application

This classification is valid for the following end use applications:

- Free standing
- A gap of 25mm

This classification is valid for the following product parameters:

- Characteristics as described in section II 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.



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

Class	Test method(s)	Classification criteria	Additional classification
A1L	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	-
A2L	EN ISO 1182 ^a or	and $\Delta T \leq 50^{\circ}\text{C}$, and $\Delta m \leq 50\%$, and $t_f \leq 20\text{ s}$ $PCS \leq 3.0\text{MJ/kg}$ ^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	-
	and EN ISO 1716		-
	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
BL	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 $F_s \leq 150\text{mm}$	
CL	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	
DL	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	
EL	EN ISO 11925-2 ^h Exposure =15s	$F_s \leq 150\text{mm}$ within 20 s	flaming droplets/particles ^g
FL	EN ISO 11925-2 ^h Exposure =15s	$F_s > 150\text{mm}$ within 20 s	



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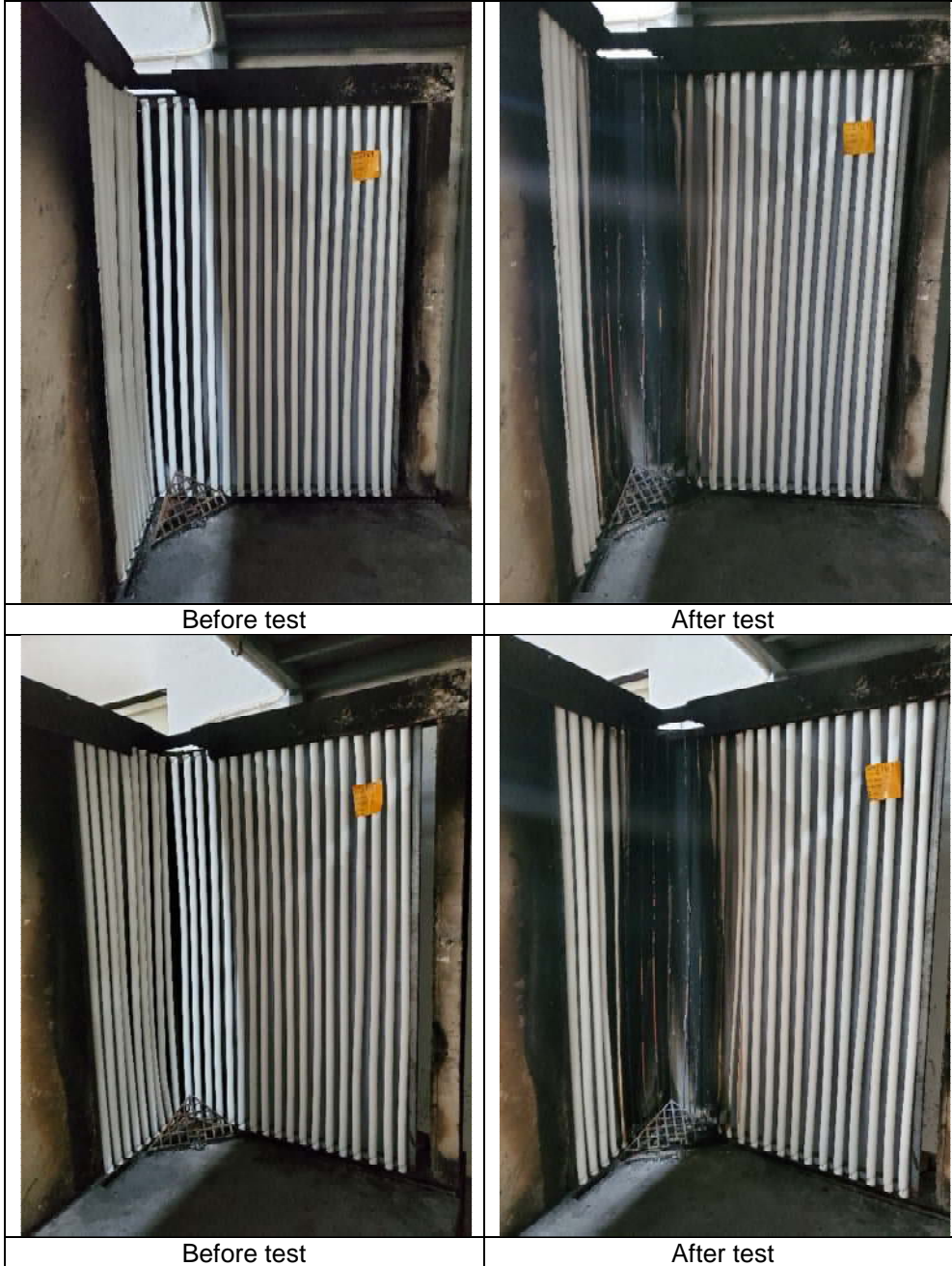
- a For homogeneous products and substantial components of non-homogeneous products.
- b For any external non-substantial component of non-homogeneous products.
- c For any internal non-substantial component of non-homogeneous products.
- d For the product as a whole.
- e **s1** = SMOGRA $\leq 105 \text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 250 \text{ m}^2$; **s2** = SMOGRA $\leq 580 \text{ m}^2/\text{s}^2$ 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.



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Photo Appendix:



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End of Report



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