

Test Report

Number: GZHH00495843

Tests Conducted

1 Fire Classification Test on WPC Board

As per the client`s requirement, the submitted samples were subjected to the following tests.

Sample description: WPC Board

Initial inspection: No any damage was found.

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 11925-2:2020 Reaction to fire tests-Ignitability of building products subjected to direct impingement of flame-Part 2: Single-flame source test.

Mounting and fixing (For EN 13823):

Test sample is installed on the substrate by screw (test substrates is calcium silicate board, the density of 900 kg/m³ and thickness of 10mm).

Test results:

Test method	Parameter	Results
EN 13823:2020+A1:2022	FIGRA _{0.2MJ} (W/s)	258.8
	FIGRA _{0.4MJ} (W/s)	258.8
	THR _{600s} (MJ)	36
	SMOGRA (m ² /s ²)	50.9
	TSP _{600s} (m ²)	455.4
	LFS < edge of specimen	Yes
	Flaming particles or droplets	No
EN ISO 11925-2:2020	F _s ≤ 150 mm	Yes
Exposure = 30s	Ignition of the filter paper	No

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Remark:

FIGRA-Fire growth rate index used for classification purposes [W/s]

For the classes A2 and B, FIGRA_{0.2MJ}

For the classes C and D, FIGRA_{0.4MJ}

LFS-Lateral flame spread [m]

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

SMOGRA-Smoke growth rate [m²/s²]

TSP_{600s}-Total smoke production within 600 s [m²]

Classification and direct field of application:

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

Classification:

Fire behaviour		Smoke production			Flaming droplets	
D	-	s	3	,	d	0

Remark:

The classes with their corresponding fire performance are given in Table 1.

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.

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Table 1 - 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
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	F _s ≤ 150mm within 60 s	
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	F _s ≤ 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	F _s ≤ 150mm within 60 s	

Test Report

Number: GZHH00495843

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^f In the last phase of the development of the test procedure, modifications of the smoke measurement system have been introduced, the effect of which needs further investigation. This may result in a modification of the limit values and/or parameters for the evaluation of the smoke production.

s1 = SMOGRA $\leq 30\text{m}^2/\text{s}^2$ and TSP_{600s} $\leq 50\text{m}^2$; s2 = SMOGRA $\leq 180\text{m}^2/\text{s}^2$ and TSP_{600s} $\leq 200\text{m}^2$; 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.

Remark: Test item is subcontracted.

End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band w = U) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

The sample(s) and sample information hereto are provided by the client who shall be solely responsible for the authenticity and integrity thereof. The results shown in this report relate only to the sample(s) tested. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. This report shall not be reproduced unless with prior written approval from Intertek Testing Services Shenzhen Limited, Guangzhou Branch. The testing data and result issued by this report are just for scientific research, teaching, internal quality control, product research and development etc. on reference only in the territory of the People's Republic of China.