

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2018

Classification no.	2020-Efectis-R000729
Sponsor	Cirqlar B.V. Notenplein 13 2555 ZR DEN HAAG THE NETHERLANDS
Product name	Cirqlar made of Resysta with PTRH technology
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	B.R. Knottnerus B.Sc. E.O. Van der Laan M.Sc. A.J. Lock
Project number	ENL-20-000206
Date of issue	April 2020
Number of pages	5

1. INTRODUCTION

This classification report defines the classification assigned to **Cirqlar made of Resysta with PTRH technology**, in accordance with the procedures given in EN 13501-1:2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **Cirqlar made of Resysta with PTRH technology**, is defined as a wall covering.

2.2 MANUFACTURER

Cirqlar B.V.
Notenplein 13
2555 ZR DEN HAAG
THE NETHERLANDS

2.3 PRODUCT DESCRIPTION

Product description:

A Fibre polymer based composite combined with rice fleece using PTRH technology. The product is coated with a non-substantial layer of FVG colour coating and a non-substantial layer of RFS UV coating.

The product has a total thickness of 4 mm and a density of approx. 1.46 g/cm³. The product is shaped into façade profile with a width of 128 mm and a total thickness of 12 mm. The façade profile is detailed in technical drawing number 4780-674 offered by the manufacturer, in the Appendix of the test report. The colour of the product is referenced by the manufacturer as C 02.

3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

3.1 APPLICABLE (PRODUCT) STANDARDS

EN ISO 11925-2:2010 + C1:2011	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
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
EN 13501-1:2018	Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests

3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	Cirqlar B.V. THE NETHERLANDS	2020-Efectis-R000727 2020-Efectis-R000728	EN ISO 11925-2:2010 + C1:2011 EN 13823:2010 + A1:2014

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
EN ISO 11925-2				
surface flame impingement	Fs ≤150 mm	6	60	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	40	-
	Ignition of filter paper		-	Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
	FIGRA _{0.2MJ} [W/s]	3	52	-
	FIGRA _{0.4MJ} [W/s]		48	-
	THR _{600s} [MJ]		5.3	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		51.1	-
	TSP _{600s} [m ²]		707	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant

3.4 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria			
Class	B	C	D
Test method(s)			
EN ISO 11925-2 Exposure = 30 s	F _s ≤ 150 mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
EN 13823	FIGRA _{0,2 MJ} ≤ 120 W/s LFS < edge of specimen THR _{600s} ≤ 7.5 MJ	FIGRA _{0,4 MJ} ≤ 250 W/s LFS < edge of specimen THR _{600s} ≤ 15 MJ	FIGRA _{0,4 MJ} ≤ 750 W/s
Additional classification			
Smoke production	s1 = SMOGRA ≤ 30 m ² /s ² and TSP _{600s} ≤ 50 m ² ; s2 = SMOGRA ≤ 180 m ² /s ² and TSP _{600s} ≤ 200 m ² ; s3 = not s1 or s2		
Flaming Droplets/particles	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.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2018.

4.2 CLASSIFICATION

The product, **Cirqlar made of Resysta with PTRH technology**, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s3

The additional classification in relation to flaming droplets / particles is:

d0

Reaction to fire classification: B – s3, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

The product has a total thickness of 4 mm and a density of approx. 1.46 g/cm³. The product is shaped into façade profile with a width of 128 mm and a total thickness of 12 mm. The façade profile is detailed in technical drawing number 4780-674 offered by the manufacturer in the Appendix of the test report. The colour of the product is referenced by the manufacturer as C 02.

This classification is valid for the following end use applications:

Substrate	Non-combustible (class A1/A2 according to EN 13238:2010) (Minimum class A2 according to EN 13238:2010)
Application	Screwed on a non-combustible board
Air gap	No
Methods and means of fixing	Screwed 400 mm c.t.c.
Joints	Channel sidings with a cover width of 105 mm
Other aspects of end use conditions	Closed surface, no openings or gaps between components

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.

5. LIMITATIONS

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



B.R. Knottnerus B.Sc.
Junior Project leader Reaction to fire



E.O. van der Laan M.Sc.
Project leader Reaction to fire



A.J. Lock
Project leader Reaction to fire