



Laboratory for Fire Safety

*Classification of reaction to fire in accordance with
EN_13501-1:2018 of RoofSupport FireWrap*

Classification report

Report number Y 2586-5E-RA-001 dated 9 May 2022

Laboratory for Fire Safety

*Classification of reaction to fire in accordance with
EN_13501-1:2018 of RoofSupport FireWrap*

Classification report

Client Conduct Technical Solutions bv
Aalborg 4
2993 LP Barendrecht
The Netherlands

Issued by Peutz bv
Lindenlaan 41
6584 AC Molenhoek
PO Box 66
6585 ZH Mook
The Netherlands



Notified body no. NB 2264



Product name **RoofSupport FireWrap**

Report number Y 2586-5E-RA-001

Date 9 May 2022

Reference HL/MvD//Y 2586-5E-RA-001

Representative ing. H.H.A. Leenders

Author Ing. M.T. van Dreumel

+31 85 822 86 19

m.vandreumel@peutz.nl

This report consists of 10 pages and may only be used or reproduced in its entirety. This document is originally written in English. In case of ambiguities, this original version shall prevail.

Table of contents

1 Introduction	4
2 Product description	5
2.1 General	5
2.2 Harmonised product standard	5
2.3 Product identification	5
3 Reports and results in support of this classification	7
3.1 Reports	7
3.2 Results	7
3.3 Classification criteria	8
4 Classification and field of application	9
4.1 Reference of classification	9
4.2 Classification	9
4.3 Field of application	9
5 Limitations	10

1 Introduction

On behalf of Conduct Technical Solutions bv an investigation was performed with respect to the reaction to fire properties of RoofSupport FireWrap.

This classification report defines the reaction to fire classification of the product in accordance with the procedures described in EN 13501-1: 2018.



For this type of measurements the Laboratory for Fire safety has been accredited by the Dutch "Raad voor Accreditatie" (RvA).

The RvA is member of EA MLA (**EA MLA: European Accreditation Organisation MultiLateral Agreement**: <http://www.european-accreditation.org>).

EA: "Certificates and reports issued by bodies accredited by MLA and MRA members are considered to have the same degree of credibility, and are accepted in MLA and MRA countries."

2 Product description

2.1 General

The information in this report is based on information provided by the client.

The product investigated is the RoofSupport FireWrap, hereinafter also called 'the product'. The intended application is to protect solar cables against fire and to delay the fire spread between compartments. The FireWrap bag is based on an E-glass fibre silicone coated textile layer filled with an insulation material. The bag is sealed with high temperature resistant threads and provided with stainless steel tensioners.

2.2 Harmonised product standard

According to the client there was no harmonised European product standard published at the time the tests were conducted and this report was drawn up.

2.3 Product identification

The most important parameters for identifying the product are summarized in Tables 2.1 and 2.2 below.

t2.1 General information of product to be tested

Product	
Date of delivery	14 th of January 2022 / 21 st of March 2022
Commercial name	RoofSupport FireWrap
Manufacturer	Forfyre bv Koopvaardijweg 3A 4906 CV Oosterhout The Netherlands
Client	Conduct Technical Solutions bv Aalborg 4 2993 LP Barendrecht The Netherlands
Identification	N/A
Sampling	N/A

Peutz was not involved in the selection of the test specimen (or of its materials). The laboratory cannot make any declaration about the representativeness of the provided specimen and the samples made available. The results apply to the sample as received.

t2.2 Additional information of product

Product	Nominal value	Measured value [MV]
Description	The FireWrap bag is based on an E-glass fibre silicone coated textile layer (1) filled with an insulation material (2). The bag is sealed with high temperature resistant threads (3) and provided with stainless steel tensioners (not part of the test specimen).	
Intended use	Protect solar cables against fire and to delay the fire propagation between compartments.	
Dimensions [mm]	420 x 400	
Total thickness [mm]	19 (23-24 mm including stainless steel tensioners)	
Density [kg/m ³]	4.1-4.9	
Surface weight [kg/m ²]	170-203	
Colour	White	
Layer (1)		
Type product	E-glass fibre based textile, silicon coated on both sides	
Commercial name	Fyretex 550 HT SIL	
Thickness [mm]	0.40	
Density [kg/m ³]	0.512	
Surface weight [kg/m ²]	0.64	
Colour	White	
Layer (2)		
Type product	High temperature insulation wool blanket based on alkaline earth silicate fibres	
Commercial name	FyreBlanket 1200	
Thickness [mm]	25	
Density [kg/m ³]	128	
Surface weight [kg/m ²]	3.2	
Binder	None	
Layer (3)		
Type product	Kevlar covered steel threads	
Commercial name	FyreYarn 1000	
Thickness [mm]	0.15	
Density [kg/m ³]	N/A	
Surface weight [kg/m ²]	N/A	
Colour	White/yellow	

The values mentioned are the nominal values as given by the client, unless otherwise stated

3 Reports and results in support of this classification

3.1 Reports

The client has confirmed that the reports provided (see Table 3.1) may be used for this classification.

t3.1 Reports in support of classification

Name of laboratory	Name of client	Number and date of report	Test method Field of application rules
Peutz bv, NB 2264	Forfyre bv	Y 2586-3E-RA-001, 9 th of May 2022	EN 13823:2020
Peutz bv, NB 2264	Forfyre bv	Y 2586-4E-RA-001, 9 th of May 2022	EN-ISO 11925-2:2020

3.2 Results

The results obtained are summarised in Tables 3.2 and 3.3.

t3.2 Summary of test results EN-ISO 11925-2

Flame application time 30 s		Number of tests	Results	
Parameter	Continuous parameters (average)		Compliance parameters	
Surface exposure	Fs ≤ 150 mm	6	-	Y
	Ignition of filter paper		-	N

t3.3 Summary of test results EN 13823

Parameter	Number of tests	Results	
		Continuous parameters (average)	Compliance parameters
FIGRA _{0,2MJ}	[W/s]	0	-
FIGRA _{0,4MJ}	[W/s]	-	-
THR _{600s}	[MJ]	0.5	-
SMOGRA	[m ² /s ²]	0	-
TSP _{600s}	[m ²]	1	-
LFS reaching edge			N
Flaming droplets/particles			
- FDP ≤ 10 s		-	N
- FDP > 10 s		-	N

3.3 Classification criteria

The classification to be obtained is based on the classification criteria given in EN 13501-1. In Tables 3.4 and 3.5 these criteria are summarised.

t3.4 Classification criteria

Test	Parameter Continuous (average) or compliance	Class		
		B	C	D
EN-ISO 11925-2	Flame spread ≤ 150 mm	Y	Y	Y
EN 13823	FIGRA _{0,2MJ}	[W/s] ≤ 120	-	-
	FIGRA _{0,4MJ}	[W/s] -	≤ 250	≤ 750
	THR _{600s}	[MJ] $\leq 7,5$	≤ 15	-
	LFS reaching edge	N	N	-

t3.5 Criteria additional classifications

Test	Parameter Continuous (average) or compliance	Class			Class		
		s1	s2	s3	d0	d1	d2
EN-ISO 11925-2	Ignition of filter paper	-	-	-	N	N	Y
	<i>Note: ignition of filter paper leads to classification d2, irrespective of the results for FDP in EN 13823</i>						
EN 13823	SMOGRA	[m ² /s ²] ≤ 30	≤ 180	not s1	-	-	-
	TSP _{600s}	[m ²] ≤ 50	≤ 200	or s2	-	-	-
EN 13823	Flaming droplets/particles (FDP) within 600 s						
	- FDP ≤ 10 s	-	-	-	N	Y	-
	- FDP > 10 s	-	-	-	N	N	not d0 or d1

4 Classification and field of application

4.1 Reference of classification

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

4.2 Classification

The product, RoofSupport FireWrap, has been classified to its reaction to fire behaviour as: **B**. The additional classification for the smoke production is: **s1**, the additional classification for flaming droplets is: **d0**.

Reaction to fire classification: B-s1, d0

4.3 Field of application

The classification is valid for the product parameters and end use applications as stated in Tables 4.1 and 4.2.

t4.1 Product parameters

Parameter		
Dimensions	420 x 400	[mm]
Total thickness	19 (23-24 mm including stainless steel tensioners)	[mm]
Surface weight [kg/m ²]	4.1-4.9	[kg/m ²]
Colour	White	

t4.2 End use parameters

Parameter	
Substrate and air gap	As free standing application if other materials (e.g. solar cables) are at a distance of at least 80 mm (e.g. due to wire basket cable tray).
Methods and means of fixing	Not tested
Joints/seams	Horizontal and vertical seams may be present
Other aspects	Use to protect solar cables in wired basket cable trays against fire and to delay the fire propagation between compartments.

5 Limitations

There are no limits in time on the validity of this classification document.

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



H.H.A. Leenders, BSc.
Head of Laboratory for For Fire Testing

Mook,



D.J. den Boer, BSc.
Management

This report contains 10 pages