

Reaction to fire classification report

Issuing laboratory: WFRGENT NV

Classification standard: EN 13501-1: 2018

Sponsor(s): TRESPA INTERNATIONAL BV

Product(s): PURA® NFC

Report number: 23039F

Version: 1

WFRGENT NV, accredited for compliance with ISO/IEC 17025:2017 – Testing

Quality management

Version	Summary of amendments including reasons	
1	Description	Initial issue
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1. Introduction

This classification report defines the classification assigned to PURA® NFC, in line with the procedures given in EN 13501-1: 2018.

WFRGENT NV (Warringtonfire) issued the classification report at the request of the sponsor listed in Table 1.

Table 1 Sponsor details

Entity	Address
Sponsor	
TRESPA INTERNATIONAL BV	Wetering 20 Weert, 6002 SM The Netherlands

2. Details of classified product

2.1 General

The product(s), PURA® NFC, are defined as being suitable for construction applications excluding floorings and linear pipe thermal insulation.

The related harmonised product standard is EN 438-7:2005.

2.2 Product description

The product(s), PURA® NFC within the UNI colourgroup and within the printed colourgroup are described in respectively Table 2 and Table 3 and in the test reports listed in Section 3.1.

Table 2 Product description of PURA® NFC within the UNI colourgroup

Nominal values (1)	
PURA® NFC	
Type of product	High Pressure Laminate (HPL) siding with tongue and groove connections suitable for exterior applications. The material consists of kraft paper impregnated with phenolic resin (type known by the lab) and a coat on the outside with acrylic resin.
Manufacturer	Trespa International B.V.
Core type	KRAFT
Total thickness (mm)	8
Visible width (mm)	174 (see Figure 5)
Actual width (mm)	186 (see Figure 5)
Total density (kg/m³)	1450
Use of fire retardants	Yes
Amount of fire retardant (weight %)	Confidential information by the test sponsor
Colour of the coating on the decor side	Athens White PUL0500 (3), New York Grey PUL2581 (2), Metropolis Black PUL9000 (1), see Figure 1
Colour of the core	Black
Amount of coating on the decor side (g/m²)	± 90
Colour group on the decor side	UNI colourgroup
Surface texture	Diffuse

(1) Based on the information given by the sponsor:

Table 3 Product description of PURA® NFC within the printed colourgroup

Nominal values (1)	
PURA® NFC	
Type of product	High Pressure Laminate (HPL) siding with tongue and groove connections suitable for exterior applications. The material consists of kraft paper impregnated with phenolic resin (type known by the lab) and a coat on the outside with acrylic resin.
Manufacturer	Trespa International B.V.
Core type	KRAFT
Total thickness (mm)	8
Visible width (mm)	174 (see Figure 5)
Actual width (mm)	186 (see Figure 5)
Total density (kg/m³)	1450
Use of fire retardants	Yes
Amount of fire retardant (weight %)	Confidential information by the test sponsor
Colour of the coating on the decor side	French Walnut PU14 (4), Aged Ash PU17 (5), Slate Ebony PU22 (6), Mystic Cedar PU24 (7), Siberian Larch PU28 (8), Tropical Ipe PU30 (9), Western Red Cedar PU31 (10), Classic Oak PU02 (11) and Romantic Walnut PU08 (12), see Figure 1
Colour of the core	Brown
Amount of coating on the decor side (g/m²)	± 90
Colour group on the decor side	Printed colourgroup
Surface texture	Matt

(1) Based on the information given by the sponsor:

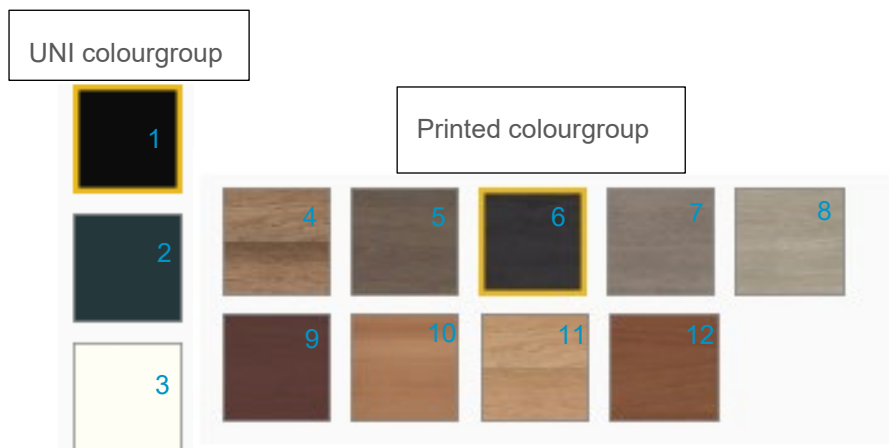


Figure 1 possible colours for the PURA® NFC sidings

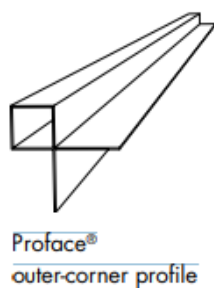


Figure 2: outer corner profile

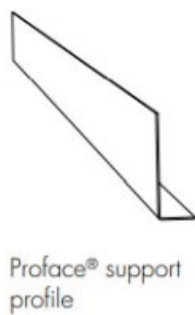


Figure 3: support profile

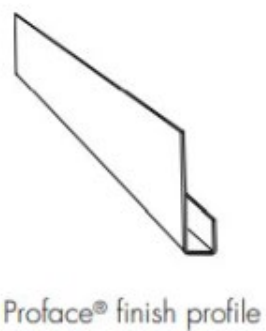


Figure 4: finish profile

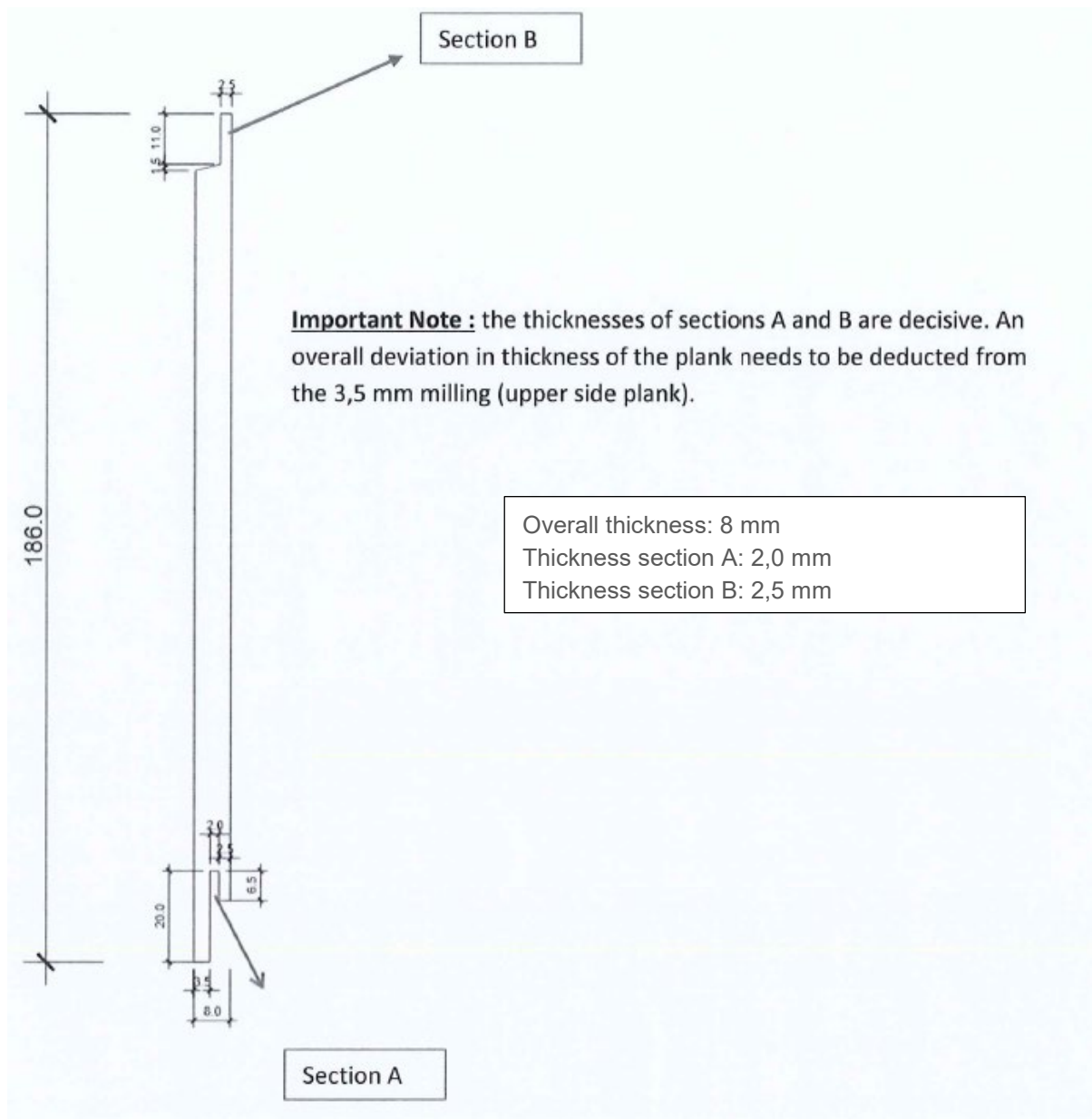


Figure 5: Specification Trespa Pura NFC® siding

3. Test reports and test results in support of classification

3.1 Test reports

Table 4 details the test reports that have been used in support of classification.

Table 4 Test reports

Name of laboratory	Name of sponsor(s)	Test report no.	Test date	Test and extended application standard
Warringtonfire	TRESPA INTERNATIONAL BV	22082B	23 May 2023	EN 11925-2:2020
Warringtonfire	TRESPA INTERNATIONAL BV	22082C	27 July 2023	
Warringtonfire	TRESPA INTERNATIONAL BV	23039A	12 September 2023	EN 13823: 2020 + A1: 2022
Warringtonfire	TRESPA INTERNATIONAL BV	23039B	17 October 2023, 30 November 2023	
Warringtonfire	TRESPA INTERNATIONAL BV	23039C	02 October 2023	
Warringtonfire	TRESPA INTERNATIONAL BV	23039D	13 December 2023	
Warringtonfire	TRESPA INTERNATIONAL BV	23039E	NA	DD CEN/TS 15117: 2005 EN 15725:2010

3.2 Test results

3.2.1 Official test results used for the extended application (horizontal orientation)

Table 5 details the test results that have been used in support of extended application. The fire performance parameters for the envisaged classification can be found in Table 9.

Table 5 Test data for the sidings in horizontal orientation

Test method Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
EN 13823: 2020 + A1: 2022 23039A Single sided HPL-siding Kraft core type PUL9000 (METROPOLIS BLACK) colour décor side Diffuse surface texture Horizontal orientation Ventilated airgap	FIGRA (THR(t) threshold of 0.2MJ)	3	77	-
	FIGRA (THR(t) threshold of 0.4MJ)		77	-
	THR _{600s} (MJ)		5.5	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m ² /s ²)		10	-
	TSP _{600s} (m ²)		91	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant
EN 13823: 2020 + A1: 2022 23039C Single sided HPL-siding Kraft core type PU22 (SLATE EBONY) colour décor side Matt surface texture Horizontal orientation Ventilated airgap	FIGRA (THR(t) threshold of 0.2MJ)	3	112	-
	FIGRA (THR(t) threshold of 0.4MJ)		112	-
	THR _{600s} (MJ)		6.5	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m ² /s ²)		13	-
	TSP _{600s} (m ²)		139	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant

Note: ‘-’ symbol confirms this parameter is not applicable.

Test method Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
EN ISO 11925-2: 2020 (30s exposure - Surface) 22082B Single sided HPL-board Kraft core type L9000 (*) (METROPOLIS BLACK) colour décor side	$F_s \leq 150$ mm within 60 s	6	-	Compliant
	No ignition of the paper		-	Compliant
EN ISO 11925-2: 2020 (30s exposure - Edge) 22082B Single sided HPL-board Kraft core type L9000 (*) (METROPOLIS BLACK) colour décor side	$F_s \leq 150$ mm within 60 s	6	-	Compliant
	No ignition of the paper		-	Compliant
EN ISO 11925-2: 2020 (30s exposure - Surface) 22082C Single sided HPL-board Kraft core type NA17 (**) (Natural Graphite) colour décor side	$F_s \leq 150$ mm within 60 s	6	-	Compliant
	No ignition of the paper		-	Compliant
EN ISO 11925-2: 2020 (30s exposure - Edge) 22082C Single sided HPL-board Kraft core type NA17 (**) (Natural Graphite) colour décor side	$F_s \leq 150$ mm within 60 s	6	-	Compliant
	No ignition of the paper		-	Compliant

Note: '-' symbol confirms this parameter is not applicable.

(*) The L9000 equivalent is PUL9000.

(**) The NA17 equivalent is PU22.

3.2.2 Official test results used for the extended application (vertical orientation)

Table 6 details the test results that have been used in support of extended application. The fire performance parameters for the envisaged classification can be found in Table 9.

Table 6 Test data for the sidings in vertical orientation

Test method Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
EN 13823: 2020 + A1: 2022 23039B Single sided HPL-siding Kraft core type PUL9000 (METROPOLIS BLACK) colour décor side Diffuse surface texture Vertical orientation (*)	FIGRA (THR(t) threshold of 0.2MJ)	3	64	-
	FIGRA (THR(t) threshold of 0.4MJ)		64	-
	THR _{600s} (MJ)		3.7	-
	LFS < edge of specimen		-	Compliant
	SMOGR _A (m ² /s ²)		7	-
	TSP _{600s} (m ²)		39	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant
EN 13823: 2020 + A1: 2022 23039D Single sided HPL-siding Kraft core type PU22 (SLATE EBONY) colour décor side Matt surface texture Vertical orientation (*)	FIGRA (THR(t) threshold of 0.2MJ)	3	89	-
	FIGRA (THR(t) threshold of 0.4MJ)		61	-
	THR _{600s} (MJ)		3.5	-
	LFS < edge of specimen		-	Compliant
	SMOGR _A (m ² /s ²)		8	-
	TSP _{600s} (m ²)		37	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant

Note: '-' symbol confirms this parameter is not applicable.

The results according to EN ISO 11925-2 as shown in 3.2.1 are not taken over in this section. However these results also apply for the B-s2,d0 classification.

(*) For vertical orientation, the mechanical fixation is valid for all types of supporting frames (wood, aluminum, steel frames) with fixing distances of up to 800 mm. For wooden frames, this frame is a one layered flat frame (two layered frames are not part of this classification).

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 PURA® NFC in relation to its reaction to fire behavior is classified as:

B

The additional classification in relation to smoke production is:

s2

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

d0

The format of the reaction to fire classification for construction applications excluding floorings and linear pipe thermal insulation products is:

Fire behaviour		Smoke production		Flaming droplets		
B	-	s	2	,	d	0

Alternatively shown:

Reaction to fire classification: B - s2, d0

4.3 Field of application

The classification for the product described in Section 2.2 of this report is valid for end-use applications described in Table 7 (horizontal application) and Table 8 (vertical application).

Table 7 End-use applications for the horizontal application

End use	Description	Origin
Substrate	Any wood based substrate with a density equal to or greater than 510kg/m ³ , having a minimum thickness of 10mm and a fire performance of D-s2, d0 or better. Any substrate with a density equal to or greater than 510kg/m ³ , having a minimum thickness of 10mm and a fire performance of A2-s1, d0 or better.	As per EN 13238: 2010, clause 5.3 and EGOLF recommendation 045-2018.
Fixing	mechanically fixed on all types of supporting frames (wood, aluminum, steel frames) with fixing distances of up to 800 mm. For wooden frames, this frame is a one layered flat frame.	EN 438-7:2005 Annex B §B.4
Airgap	With a ventilated open airgap	EN 438-7:2005 Annex B §B.4
Joint configuration	Horizontal tongue & groove joints every 174 mm, due to the width of the sidings. At the centre of the vertical members of the supporting frame, some of the sidings are fixated with a vertical intermediate open joint of 8 mm. At the bottom siding there is no intermediate vertical joint present. The second siding starting from the bottom has a vertical intermediate open joint of 8 mm. This pattern (no intermediate joint, followed by an intermediate joint) is repeated for all the mounted horizontal sidings.	EN 438-7:2005 Annex B §B.4
EPDM joint profile band	With EPDM-joint profile band (70 mm width, 0,8 mm thickness) taped onto the front side (side onto the HPL-sidings) of the vertical battens from the supporting frame.	N/A
Insulation	With insulation (mineral wool) as tested. Valid for mineral wool, with a density of 30 kg/m ³ to 70 kg/m ³ , organic binder ≤ 5 %, and melting point > 1 000 °C (Without insulation, only valid with incombustible substrate)	EN 438-7:2005 Annex B §B.4
Orientation	Product mounted in horizontal orientation.	N/A
Profile onto the vertical outer edges	A Proface® flush siding outer corner profile (see Figure 2) is installed onto the outer vertical members of the supporting frame.	N/A

Table 8 End-use applications for the vertical application

End use	Description	Origin
Substrate	Any wood based substrate with a density equal to or greater than 510kg/m ³ , having a minimum thickness of 10mm and a fire performance of D-s2, d0 or better. Any substrate with a density equal to or greater than 510kg/m ³ , having a minimum thickness of 10mm and a fire performance of A2-s1, d0 or better.	As per EN 13238: 2010, clause 5.3 and EGOLF recommendation 045-2018.
Airgap	With a ventilated open airgap (achieved by the usage of clips)	EN 438-7:2005 Annex B §B.4
Joint configuration	Vertical tongue & groove joints every 174 mm, due to the width of the sidings. At the centre of the horizontal members of the supporting frame some of the sidings are fixated with a horizontal intermediate open joint of 8 mm. There is no intermediate joint present in the vertical sidings starting from the inner corner. The following siding (second siding from the inner corner) was provided with an intermediate joint at a distance of 495 mm from the bottom, followed by a vertical siding (third siding from the inner corner) without an intermediate joint, followed by a siding (fourth siding from the inner corner) with an intermediate joint at a distance of 983 mm from the bottom. This pattern is repeated for all the mounted vertical sidings.	EN 438-7:2005 Annex B §B.4
EPDM joint profile band	With EPDM-joint profile band (70 mm width, 0,8 mm thickness) taped onto the front side (side onto the HPL-sidings) of the horizontal battens from the supporting frame.	N/A
Insulation	With insulation (mineral wool) as tested. Valid for mineral wool, with a density of 30 kg/m ³ to 70 kg/m ³ , organic binder ≤ 5 %, and melting point > 1 000 °C (Without insulation, only valid with incombustible substrate)	EN 438-7:2005 Annex B §B.4
Orientation	Product mounted in vertical orientation.	N/A
Profile onto the vertical outer edges	A Proface® flush siding outer corner profile (see Figure 2) is installed onto the outer vertical members of the supporting frame.	N/A
Profile onto the horizontal upper edge	At the upper horizontal member of the supporting frame a Proface® finish profile (see Figure 4) is installed	N/A
Profile onto the horizontal bottom edge	A colour matching Proface® support profile Black (see Figure 3) is screwed at the bottom of the horizontal member of the supporting frame and at the horizontal member of the supporting frame where a vertical intermediate joint is positioned.	N/A

This classification is valid for the following product parameters:

- Nominal thickness of the HPL-sidings: 8 mm
- Nominal density of the HPL-sidings: 1450 kg/m³
- Visible width of the HPL-sidings: 174 mm
- Colour on the decor side for the UNI-colourgroup: Athens White PUL0500 (3), New York Grey PUL2581 (2), Metropolis Black PUL9000 (1), see Figure 1
- Colour on the decor side for the printed colourgroup: French Walnut PU14 (4), Aged Ash PU17 (5), Slate Ebony PU22 (6), Mystic Cedar PU24 (7), Siberian Larch PU28 (8), Tropical Ipe PU30 (9), Western Red Cedar PU31 (10), Classic Oak PU02 (11) and Romantic Walnut PU08 (12), see Figure 1
- Use of flame retardants: Yes
- Surface texture : diffuse (UNI-colour group) and matt (printed colour group)

4.4 Fire performance parameters for B - s2, d0

All the products described in Section 2.2 and within the field of application defined in Table 7 and Table 8 comply with the fire performance parameters shown in Table 9. The test results can be found in Section 3.2.

Table 9 Fire performance parameters used to classify the product for B - s2, d0

Test method	Parameter	Continuous parameters	Compliance with parameters
EN ISO 11925-2: 2020 (30s exposure)	Extent of flame spread	-	Fs ≤ 150 mm within 60 s
	Flaming droplets / particles that ignite filter paper	-	No ignition of the paper
EN 13823: 2020 + A1: 2022	FIGRA (THR(t) threshold of 0.2MJ)	FIGRA _{0,2MJ} ≤ 120 W/s	-
	FIGRA (THR(t) threshold of 0.4MJ)	-	-
	THR _{600s} (MJ)	THR _{600s} ≤ 7,5 MJ	-
	Lateral flame spread to edge of test specimen?	-	LFS < edge of specimen
	SMOGRA (m ² /s ²)	SMOGRA ≤ 180 m ² /s ²	-
	TSP _{600s} (m ²)	TSP _{600s} ≤ 200 m ²	-
	Fall of flaming droplets/particles < 10s?	-	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s
	Fall of flaming droplets/particles > 10s?	-	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s

Note: '-' symbol confirms this parameter is not applicable.

5. Restrictions

At the time the standard EN 13501-1: 2018 was published, no decision was made about the duration of validity of a classification report.

Provisions of Regulation (EU) 305/2011, commonly known as the Construction Products Regulation (CPR), prevail over any conflicting provisions in the harmonised standards and technical specifications.

6. Limitations

The classification assigned to the product in this report is appropriate for a Declaration of Performance (DoP) by the manufacturer within the context of System 1 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.

The test laboratory played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide evidence for the traceability of the samples tested.

7. Validity

This document is the original version of this classification report and is written in English. In case of doubt the original version prevails over a translation.

This document is issued subject to Warringtonfire's standard terms and conditions, which are available at: [Terms and Conditions | Element](#).

The classification results relate to the behaviour of a product under the particular conditions of the test(s); they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use, nor can the classification results be extrapolated and applied to other products, or imply suitability for use in configurations not specifically detailed in the classification report. The classification is based on the information available to Warringtonfire at the time of the report. Should conflicting or contradictory evidence become available, Warringtonfire reserves the right to unconditionally withdraw the classification report forthwith upon giving written notice of the same.

Reports are statements of fact prepared in accordance with the referenced version of the standards stated in Section 3 of this report. Test, classification and extended application are based upon the information provided to Warringtonfire. Warringtonfire takes no responsibility for the accuracy or completeness of such information.

The results stated in this classification report apply to the test specimens as received and/or specified in the referenced/supporting test reports. Any differences in composition, production process, thickness, density or colour of the product may significantly affect the performance and will therefore invalidate the application of the test and classification results to the variant product. It is recommended that any proposed variation to the tested configuration or product should be referred to the sponsor. The sponsor should then obtain appropriate documentary evidence of compliance from Warringtonfire or another accredited testing authority. The supplier of the product is responsible for ensuring that the product which is supplied for use is identical to the test specimens that were tested.

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