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global safety

MEMBER OF **Bodycote** TESTING GROUP

Reaction to fire classification report Nr 13724F

Owner of the classification report

ARLA PLAST AB
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Introduction

This classification report defines the classification assigned to the products '**GRIPHEN, GRIPHEN UV, GRIPHEN FROST**' in accordance with the procedures given in the standard EN 13501-1: 2007: Fire classification of construction products and building elements - Part 1: classification using data from reaction to fire tests.

This classification report consists of 8 pages



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196-TEST

1. DETAILS OF CLASSIFIED PRODUCT

a) Nature and end use application

The products '**GRIPHEN, GRIPHEN UV, GRIPHEN FROST**' are defined as 'PETG sheets'.

Their classification is valid for the following end use application(s):

'Used for wall cladding, walls, ceilings, window panes, advertisement, roofs, light domes, light covers, design'.

b) Description

The product "**GRIPHEN**" consists of a transparent PETG sheet, having a light transmission of 88%.

	Nominal values	
Thickness (mm)	0,75	6
Density (kg/m ³)	1270	

The product "**GRIPHEN UV**" consists of a transparent PETG sheet with a UV protection layer. The sheet has a light transmission of 88%. The product was tested as transparent, having a light transmission of 88%, as coloured white (Opal 30), having a light transmission of 16% and as coloured bronze (Bronze 880), having a light transmission of 29%.

	Nominal values	
Thickness (mm)	6	
Density (kg/m ³)	1270	

The product "**GRIPHEN FROST**" consists of a transparent PETG sheet. The sheet has a compound coating based on PETG with a mineral additive, creating a frosted look. Further confidential information about the coating was supplied to the laboratory. The product was tested as transparent, having a light transmission of 88%, and coloured white (Opal), having a light transmission of 12%.

	Nominal values	
Thickness (mm)	2	6
Density (kg/m ³)	1270	

Mounting and fixing: The material was mounted in between two metal frames and tested with a metal corner profile, creating an air gap of 100mm. See Annex 1

2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

a) Test reports

Name of the laboratory	Name of the sponsor	Test report ref. Nr.	Test method, exap
WFRGENT N.V. Ghent, Belgium	ARLA PLAST AB	12898A, 12898C, 12898E, 13102A, 13476A, 13500A, 13724B, 13724D	EN 13823 (February 2002)
WFRGENT N.V. Ghent, Belgium	ARLA PLAST AB	12898B, 12898D, 12898F, 13102B, 13476B, 13724A	EN ISO 11925-2 (February 2002)
WFRGENT N.V. Ghent, Belgium	ARLA PLAST AB	13724E	EXAP according to DD CEN/TS 15117

b) Test results

Test method	Parameter	Number of tests	Results		Criteria for Class B-s2,d0	
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters
EN ISO 11925-2 (*) (1) 30s flame application: <u>Surface exposure</u> - front side	F _s ≤ 150mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN ISO 11925-2 (*) (2) 30s flame application: <u>Surface exposure</u> - front side	F _s ≤ 150mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN ISO 11925-2 (*) (3) 30s flame application: <u>Surface exposure</u> - front side	F _s ≤ 150mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN ISO 11925-2 (*) (4) 30s flame application: <u>Surface exposure</u> - front side	F _s ≤ 150mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No

(-) Not applicable

(*) The material did not melt nor pull away from the pilot burner.

(1) Based on the results obtained in test report Nr. 12898B, GRIPHEN 0,75mm

(2) Based on the results obtained in test report Nr. 12898D, GRIPHEN 6mm

(3) Based on the results obtained in test report Nr. 12898F, GRIPHEN UV 6mm

(4) Based on the results obtained in test report Nr. 13102B, GRIPHEN FROST 6mm

EN ISO 11925-2 (*) (5) 30s flame application: Surface exposure - front side	Fs ≤ 150mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN ISO 11925-2 (*) (6) 30s flame application: Surface exposure - front side	Fs ≤ 150mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN ISO 11925-2 (*) (7) 30s flame application: Surface exposure - front side	Fs ≤ 150mm Ignition filter paper	6	(-) (-)	Yes No	(-) (-)	Yes No
EN 13823 (8)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	3	5 (-) (-) 0,5 1 19 (-) (-)	(-) (-) Yes (-) (-) (-) No No	≤ 120 (-) (-) ≤ 7,5 ≤ 180 ≤ 200 (-) (-)	(-) (-) Yes (-) (-) (-) No No
EN 13823 (9)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	3	26 (-) (-) 1,1 6 32 (-) (-)	(-) (-) Yes (-) (-) (-) No No	≤ 120 (-) (-) ≤ 7,5 ≤ 180 ≤ 200 (-) (-)	(-) (-) Yes (-) (-) (-) No No
EN 13823 (10)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	2	12 (-) (-) 1,1 3 32 (-) (-)	(-) (-) Yes (-) (-) (-) No No	≤ 120 (-) (-) ≤ 7,5 ≤ 180 ≤ 200 (-) (-)	(-) (-) Yes (-) (-) (-) No No

(-) Not applicable

(*) The material did not melt nor pull away from the pilot burner.

(5) Based on the results obtained in test report Nr. 13476B, GRIPHEN FROST OPAL 6mm

(6) Based on the results obtained in test report Nr. 13724A, GRIPHEN OPAL 6mm

(7) Based on the results obtained in test report Nr. 13724A, GRIPHEN BRONZE 6mm

(8) Based on the results obtained in test report Nr. 12898A, GRIPHEN 0,75mm

(9) Based on the results obtained in test report Nr. 12898C, GRIPHEN 6mm

(10) Based on the results obtained in test report Nr. 12898E, GRIPHEN UV 6mm

EN 13823 (11)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	3	80 (-) (-) 2,4 5 45 (-) (-)	(-) (-) Yes (-) (-) (-) No No	≤ 120 (-) (-) ≤ 7,5 ≤ 180 ≤ 200 (-) (-)	(-) (-) Yes (-) (-) (-) No No
EN 13823 (12)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	1	5 (-) (-) 0,7 1 32 (-) (-)	(-) (-) Yes (-) (-) (-) No No	≤ 120 (-) (-) ≤ 7,5 ≤ 180 ≤ 200 (-) (-)	(-) (-) Yes (-) (-) (-) No No
EN 13823 (13)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	2	52 (-) (-) 1,5 3 49 (-) (-)	(-) (-) Yes (-) (-) (-) No No	≤ 120 (-) (-) ≤ 7,5 ≤ 180 ≤ 200 (-) (-)	(-) (-) Yes (-) (-) (-) No No
EN 13823 (14)	FIGRA _{0,2 MJ} (W/s) FIGRA _{0,4 MJ} (W/s) LFS _{<edge} THR _{600s} (MJ) SMOGRA (m ² /s ²) TSP _{600s} (m ²) Flaming droplets/particles f<10s f>10s	3	56 (-) (-) 2,4 10 63 (-) (-)	(-) (-) Yes (-) (-) (-) No No	≤ 120 (-) (-) ≤ 7,5 ≤ 180 ≤ 200 (-) (-)	(-) (-) Yes (-) (-) (-) No No

(-) Not applicable

(11) Based on the results obtained in test report Nr. 13102A, GRIPHEN FROST 6mm

(12) Based on the results obtained in test report Nr. 13500A, GRIPHEN FROST 2mm

(13) Based on the results obtained in test report Nr. 13476A, GRIPHEN FROST OPAL 6mm

(14) Based on the results obtained in test report Nr. 13724D, GRIPHEN OPAL 6mm

EN 13823 (15)	FIGRA _{0,2 MJ} (W/s)		39	(-)	≤ 120	(-)
	FIGRA _{0,4 MJ} (W/s)		(-)	(-)	(-)	(-)
	LFS _{<edge}		(-)	Yes	(-)	Yes
	THR _{600s} (MJ)		2,2	(-)	≤ 7,5	(-)
	SMOGRA (m ² /s ²)	2	3	(-)	≤ 180	(-)
	TSP _{600s} (m ²)		49	(-)	≤ 200	(-)
	Flaming droplets/particles					
	f<10s		(-)	No	(-)	No
	f>10s		(-)	No	(-)	No

(-) Not applicable

(15) Based on the results obtained in test report Nr. 13724B, GRIPHEN BRONZE 6mm

3. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

a) Reference and direct field of application

This classification has been carried out in accordance with EN 13501-1: 2007.

b) Classification

The products '**GRIPHEN, GRIPHEN UV, GRIPHEN FROST**' in relation to their reaction to fire behavior are classified as:

Fire behavior	Smoke production	Flaming droplets
B	s2	d0

c) Field of application

This classification for the product as described in §1b, is valid for the following end use conditions :

- With a void
- No fixing, self supporting
- With protection of the cut edges with edge finishing of Euroclass A2 or better.
- No joints

This classification is valid for the following product parameters:

- Nominal thickness : from 0,75mm till 6mm
- Nominal density: 1270 kg/m³
- Colour: transparent (clear) having a light transparency of 88±5% and all colours
- with or without UV protection layer
- with or without a frosted look coating (no combination with UV-layer allowed)

4. RESTRICTIONS

At the time the standard EN 13501-1 (2007) was published, no decision was made concerning the duration of validity of a classification report.

5. WARNING

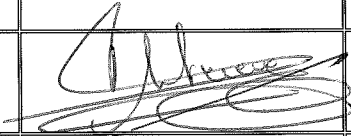
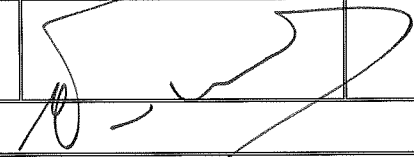
This classification report does not represent type approval nor certification of the product.

The following statement is included in accordance with Fire Sector Group Recommendation 001rev2:

“The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of a system 3 attestation of conformity and CE marking under the Construction Products Directive.

The manufacturer has made a declaration, which is held on file. This confirms that the product’s design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played 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.”

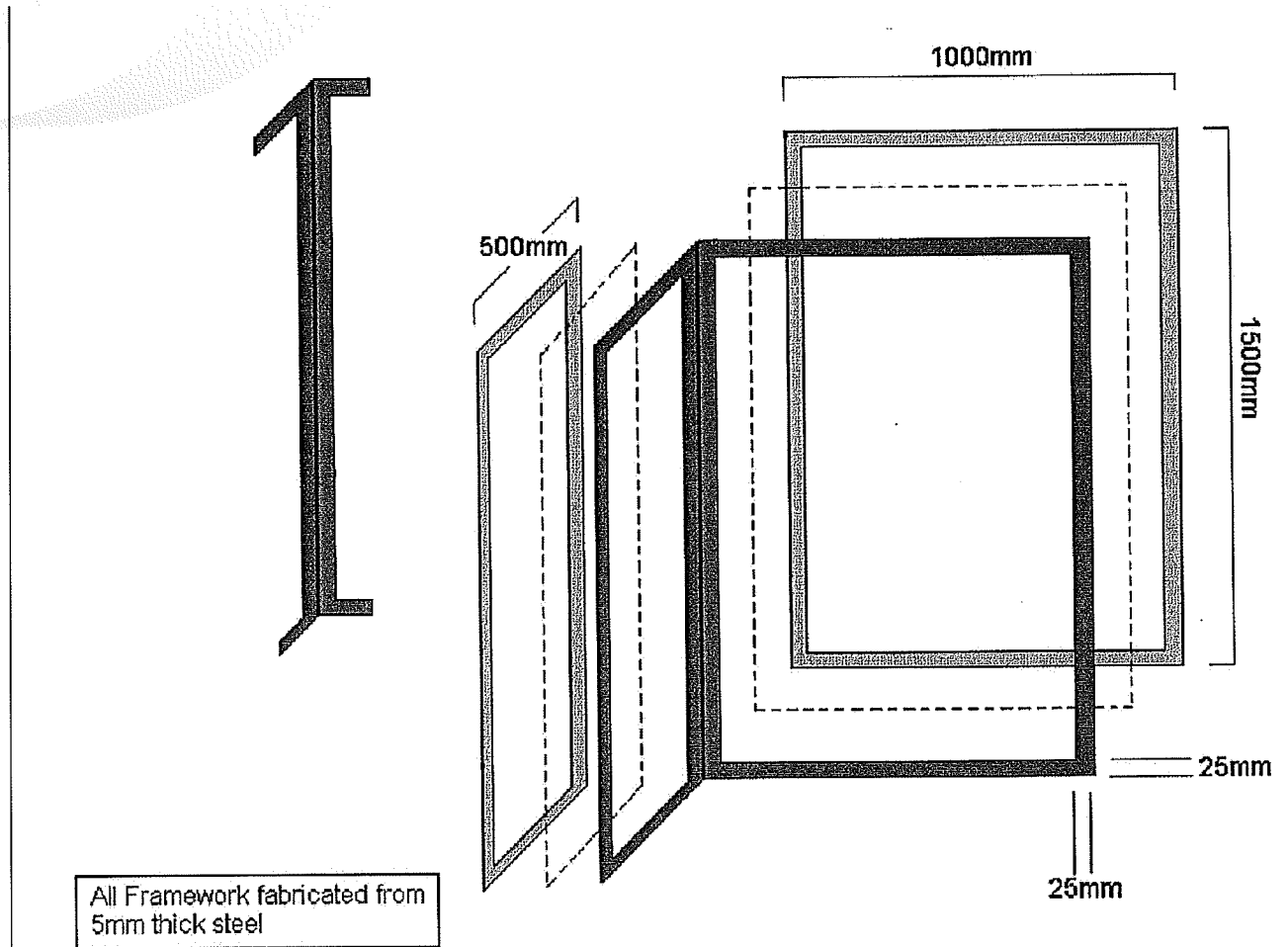
Report	Name	Signature (*)	Date
Prepared by	Ing. Frans DUTRIEUE		20 MAY 2009
Reviewed by	Prof. Dr. Ir. Paul VANDELDE		20 MAY 2009
(*) For and on behalf of "WFRGENT N.V."			

EN 13501-1 B-C-D WG 3E*

This document is the original version of this classification report and is written in English.

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Mounting specifications (*)



(*) Drawing not to scale