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Reaction to fire classification report Nr 12884G

Owner of the classification report

ARLA PLAST AB
Västanàvägen
SE-59030 BORENSBERG
SWEDEN

Introduction

This classification report defines the classification assigned to the products '**MAKROCLEAR, MAKROLIFE**' 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 6 pages

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1. DETAILS OF CLASSIFIED PRODUCT

a) Nature and end use application

The products '**MAKROCLEAR, MAKROLIFE'** are defined as 'polycarbonate 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 "**MAKROCLEAR**"consists of a transparent polycarbonate sheet, having a light transmission of 88%.

	Nominal values	
Thickness (mm)	0,75	6
Density (kg/m³)	1200	

The product "**MAKROLIFE** "consists of a transparent polycarbonate sheet with a UV protection layer. The sheet has a light transmission of 88%.

	Nominal values
Thickness (mm)	6
Density (kg/m³)	1200

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	12884A, 12884C, 12884E	EN 13823 (February 2002)
WFRGENT N.V. Ghent, Belgium	ARLA PLAST AB	12884B, 12884D, 12884F	EN ISO 11925-2 (February 2002)
WFRGENT N.V. Ghent, Belgium	ARLA PLAST AB	12884H	EXAP according to DD CEN/TS 15117

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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:						
Surface exposure	$F_s \leq 150$mm	6	(-)	Yes	(-)	Yes
- front side	Ignition filter paper		(-)	No	(-)	No
EN ISO 11925-2 (*) (2) 30s flame application:						
Surface exposure	Fs ≤ 150mm	6	(-)	Yes	(-)	Yes
- front side	Ignition filter paper		(-)	No	(-)	No
EN ISO 11925-2 (*) (3) 30s flame application:						
Surface exposure	Fs ≤ 150mm	6	(-)	Yes	(-)	Yes
- front side	Ignition filter paper		(-)	No	(-)	No
EN 13823 (4)	$FIGRA_{0,2\,MJ}$ (W/s)	3	0	(-)	≤ 120	(-)
	$FIGRA_{0,4\,MJ}$ (W/s)		(-)	(-)	(-)	(-)
	$LFS_{<edge}$		(-)	Yes	(-)	Yes
	THR_{600s} (MJ)		0,3	(-)	≤ 7,5	(-)
	SMOGRA (m²/s²)		0	(-)	≤ 180	(-)
	TSP_{600s} (m²)		19	(-)	≤ 200	(-)
	Flaming droplets/particles					
	f<10s		(-)	No	(-)	No
	f>10s		(-)	No	(-)	No
EN 13823 (5)	$FIGRA_{0,2\,MJ}$ (W/s)	3	19	(-)	≤ 120	(-)
	$FIGRA_{0,4\,MJ}$ (W/s)		(-)	(-)	(-)	(-)
	$LFS_{<edge}$		(-)	Yes	(-)	Yes
	THR_{600s} (MJ)		1,4	(-)	≤ 7,5	(-)
	SMOGRA (m²/s²)		7	(-)	≤ 180	(-)
	TSP_{600s} (m²)		52	(-)	≤ 200	(-)
	Flaming droplets/particles					
	f<10s		(-)	No	(-)	No
	f>10s		(-)	No	(-)	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. 12884B, MAKROCLEAR 0,75mm

(2) Based on the results obtained in test report Nr. 12884D, MAKROCLEAR 6mm

(3) Based on the results obtained in test report Nr. 12884F, MAKROLIFE 6mm

(4) Based on the results obtained in test report Nr. 12884A, MAKROCLEAR 0,75mm

(5) Based on the results obtained in test report Nr. 12884C, MAKROCLEAR 6mm

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EN 13823 (6)	FIGRA $_{0,2\,MJ}$ (W/s)	2	15	(-)	≤ 120	(-)
	FIGRA $_{0,4\,MJ}$ (W/s)		(-)	(-)	(-)	(-)
	$LFS_{<edge}$		(-)	Yes	(-)	Yes
	THR_{600s} (MJ)		1,3	(-)	≤ 7,5	(-)
	SMOGRA (m²/s²)		44	(-)	≤ 180	(-)
	TSP_{600s} (m²)		6	(-)	≤ 200	(-)
	Flaming droplets/particles					
	f<10s		(-)	No	(-)	No
	f>10s		(-)	No	(-)	No

(-) Not applicable
(*) The material did not melt nor pull away from the pilot burner.
(6) Based on the results obtained in test report Nr. 12884E, MAKROLIFE 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 **'MAKROCLEAR, MAKROLIFE'** 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 upper and lower 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: 1200 kg/m³
- Colour: transparent (clear) having a light transparency of 88±5%
- with or without UV protection layer

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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		3 1 MAR 2008
Reviewed by	Prof. Dr. Ir. Paul VANDEVELDE		3 1 MAR 2008
(*) 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.

Annex 1

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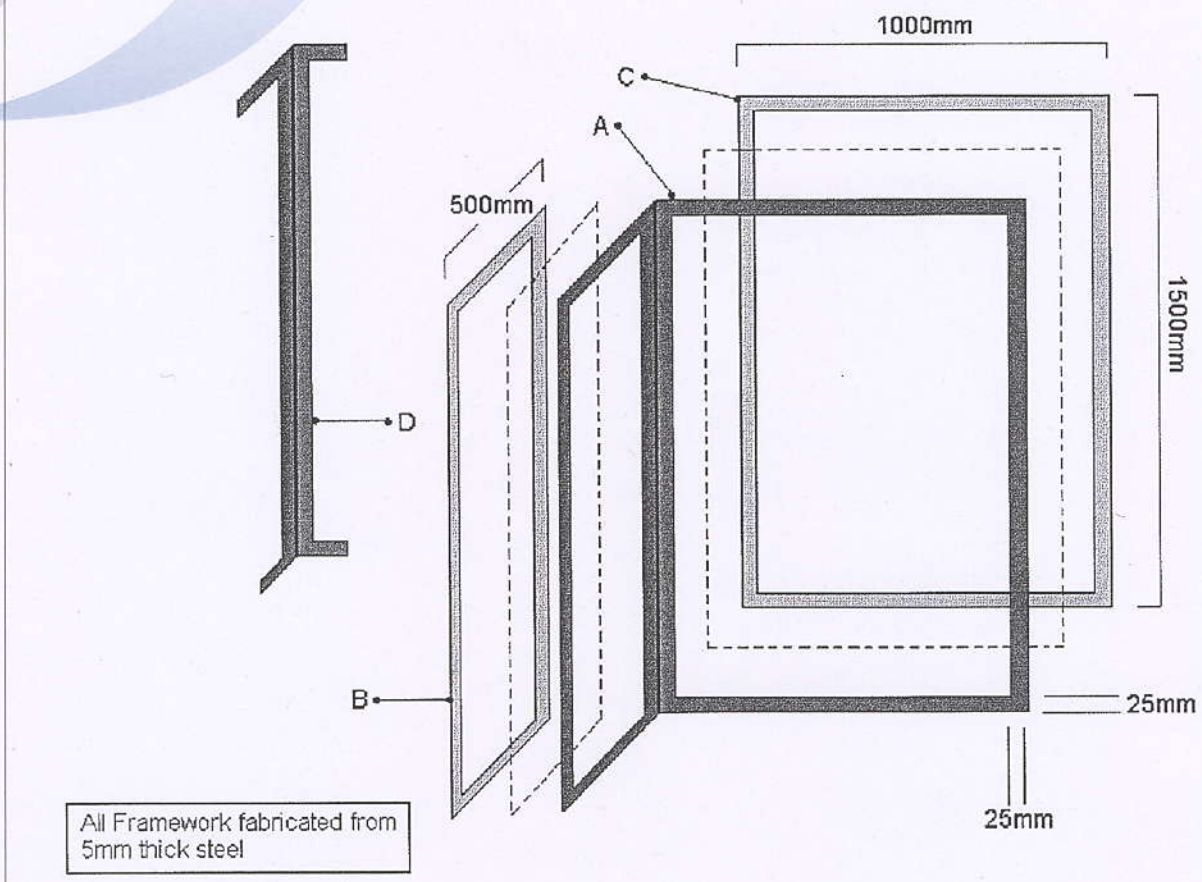
Mounting specifications (*)



(*) Drawing not to scale