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EUROPEAN REACTION TO FIRE CLASSIFICATION REPORT IN ACCORDANCE WITH EN 13501-1: 2002

And the French modified Arrêté, dated 21 November 2002, concerning the reaction to fire of construction and fitting-out products.

N° G020663 - CEMATE/10

Sponsor : EMP ESTRUSIONE MATERIALI PLASTICI SA
Via Lische 11/13 - Z.I. 3
6855 STABIO
SWITZERLAND

Commercial trademark : Macrolux LL structure 5P

Brief description : Polycarbonate sheet with cavities.

Thicknesses : from 16 to 25 mm.
Masses per unit area : from $(2,7 \pm 3 \%) \text{ kg/m}^2$ [16 mm]
to $(3,4 \pm 3 \%) \text{ kg/m}^2$ [25 mm].

Period of validity : 5 years from the 03 October 2006.

The quoted results are only applicable to the samples, the products or materials described in this document.

**The full document can be copied.
It is composed of 6 pages**

Laboratoire national de métrologie et d'essais

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1. INTRODUCTION

This classification report defines the classification assigned to product in accordance with the procedures given in EN 13501-1:2002.

2. DETAILS OF CLASSIFIED PRODUCT

2.1. NATURE AND END USE APPLICATION

Polycarbonate sheet with cavities.

End use : Covering, glass roofs, verandas, shelters.

2.2. DESCRIPTION

The tested product referenced are fully described in the test reports referenced File G020663 – Documents CEMATE/1, CEMATE/2, CEMATE/4 and CEMATE/5.

Main characteristics of tested product :

Commercial Trademarks	Masses per unit area	Thicknesses	Colors
Macrolux LL structure 5P	$(2,7 \pm 3\%) \text{ kg/m}^2$	16 mm	Clear / Opal
Macrolux LL structure 5X	$(2,5 \pm 3\%) \text{ kg/m}^2$	16 mm	
Macrolux LL structure 5P	$(3,4 \pm 3\%) \text{ kg/m}^2$	25 mm	
Macrolux LL structure 5X	$(3,3 \pm 3\%) \text{ kg/m}^2$	25 mm	

Report to be followed on next page

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

3.1. TEST REPORTS

Name of laboratory	Name of sponsor	Test report ref. n°	Test method
Laboratoire national de métrologie et d'essais 29 av. Roger Hennequin 78197 TRAPPES Cedex FRANCE Notified Body : 0071	EMP ESTRUSIONE MATERIALI PLASTICI SA Via Lische 11/13 Z.I. 3 6855 STABIO SWITZERLAND	G020663 : CEMATE/1 CEMATE/2 CEMATE/4 CEMATE/5	EN ISO 11925-2 : 2002. Ignability. EN 13823 :2002 SBI test.

Report to be followed on next page

3.2. TEST RESULTS FOR CONSTRUCTION PRODUCTS EXCEPT FLOORINGS

Test Method	Parameter	Number of tests	Results	
			Continuous parameters mean	Compliance parameter
EN ISO 11925-2 :2002. Macrolux LL structure 5P Thickness : 16 mm Surface application 30 s exposure	Fs ≤ 150 mm	6	—	YES
	Flaming droplets / particules with a filter paper ignition		—	NO
EN ISO 11925-2 :2002. Macrolux LL structure 5P Thickness : 25 mm Surface application. 30 s exposure	Fs ≤ 150 mm	6	—	YES
	Flaming droplets / particules with a filter paper ignition		—	NO
EN 13823 : 2002. Macrolux LL structure 5P Macrolux LL structure 5X Thickness : 16 mm	FIGRA _{0.2 MJ} (W/s)	3	29	-
	FIGRA _{0.4 MJ} (W/s)		24	-
	LFS < edge THR _{600s} (MJ)		— 1,2	YES -
	SMOGRA (m ² /s ²)	3	2	-
	TSP _{600s} (m ²)		28	-
	Flaming droplets / particules: FDP (≤10 s) FDP (> 10 s)		— — —	NO — —
EN 13823 : 2002. Macrolux LL structure 5P Macrolux LL structure 5X Thickness : 25 mm	FIGRA _{0.2 MJ} (W/s)	3	47	-
	FIGRA _{0.4 MJ} (W/s)		30	-
	LFS < edge THR _{600s} (MJ)		— 1,6	YES -
	SMOGRA (m ² /s ²)	3	11	-
	TSP _{600s} (m ²)		42	-
	Flaming droplets / particules: FDP (≤10 s) FDP (> 10 s)		— — —	NO — —

4. CLASSIFICATION AND DIRECT FIELD APPLICATION

4.1. CLASSIFICATION

The classification has been carried out in accordance with clause 10 of EN 13501-1 : 2002.

Fire behaviour	Smoke production	Flaming droplets
B	s1	d0

Classification : B – s1, d0 with covered cut edges

4.2. FIELD OF APPLICATION

The classification is valid for the product, referenced Macrolux LL structure 5P, with the following parameters :

- mass per unit area : from $(2,7 \pm 3 \%) \text{ kg/m}^2$ [16 mm] to $(3,4 \pm 3 \%) \text{ kg/m}^2$ [25 mm],
- thickness : from 16 to 25 mm,
- all colours,
- same composition than the products mentioned in the tests reports.

The classification is valid for the following end use conditions :

- without substrate,
- or with substrate classified A2 and a minimum airgap of 180 mm.

Report to be followed on next page

5. LIMITATIONS

5.1. RESTRICTIONS CONCERNING THE VALIDITY PERIOD OF THE CLASSIFICATION REPORT

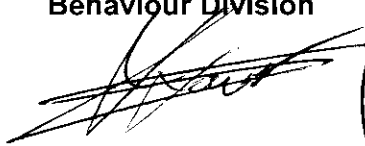
Period of validity : 5 years from the 03 October 2006.

5.2. WARNING

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

Trappes, the 03 October 2006

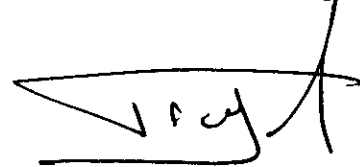
The Head of Fire
Behaviour Division



Alain SAINRAT



The Technical manager



Romain FRIGOT