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SAFETY, STRUCTURES AND FIRE DEPARTMENT

Reaction to Fire

REACTION TO FIRE CLASSIFICATION REPORT No. RA13-0266 ACCORDING TO THE EUROPEAN STANDARD NF EN 13501-1+A1:2013

Notification by the French Government to the European Commission under no 0679.

Seule la version française fait foi.

The french version is legally acceptable

Product standard

ETA Guide no. 034 (2012): "Kits for external wall claddings"

Owner:	ALCOA ARCHITECTURAL PRODUCTS S.A.S. 1 rue du Ballon 68500 MERXHEIM FRANCE
Commercial brand(s):	REYNOBOND® A2
Manufacturing unit(s):	ALCOA ARCHITECTURAL PRODUCTS S.A.S. 1 rue du Ballon 68500 MERXHEIM FRANCE
Brief description:	Composite panel with polyethylene and fillers core surfaced on both sides with aluminium sheets (see detailed description in paragraph 2)
Date of issue:	September 17th, 2013

The indicated classification does not prejudice the conformity of marketed materials with the samples submitted to the tests and under no circumstances, this document should not be considered as type approval or certification of the product in the sense of the L 115-27 to L 115-33 and R 115-1 to R 115-3 articles of the consumption's code.

If this report is being issued by e-mail and/or on an electronic medium, only the hard copy of the report signed by CSTB shall prevail in the event of a dispute.

The reproduction of this classification report is only authorised in its integral form.

It comprises 6 pages.

The document RA13-0266 dated September 17th, 2013 cancels and replaces the document RA11-0252 dated October 17th, 2011 for modification of the core formulation.

CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT

SIÈGE SOCIAL > 84 AVENUE JEAN JAURÈS | CHAMPS-SUR-MARNE | 77447 MARNE-LA-VALLÉE CEDEX 2

TÉL. (33) 01 64 68 84 12 | FAX. (33) 01 64 68 84 79 | www.cstb.fr

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1. Introduction

This classification report defines the classification assigned to the above-mentioned product(s) in accordance with the procedures given in the NF EN 13501-1+A1:2013 standard.

2. Product description

Composite panel consisting of a core made of low density polyethylene and mineral fillers covered on both sides with a precoated aluminium sheet thermally bonded using polyethylene films.

Tested systems: riveted on metal substructure and cassette on metal substructure.

Finishes: Duragloss® 5000 35 µm and PVDF 70/30 35 µm.

Nominal thickness of the aluminium facings: 0.5 mm.

Thickness of the thermobonding film : 50 µm

Overall nominal thickness: 4 mm.

Overall nominal weight per unit area: 8.12 kg/m².

Colours: various.

3. Tests reports and tests results in support of this classification

3.1 Tests reports

Name of laboratory	Name of sponsor	Test identification	Test report Nos.	Test method
CSTB	ALCOA ARCHITECTURAL PRODUCTS S.A.S. 1 rue du Ballon 68500 MERXHEIM FRANCE	ES541120792	RA13-0266	EN ISO 11925-2:2002 EN 13823:2002

3.2 Tests results

Test method	Product	Number of tests	Parameters	Results	
				Continuous parameters : mean value	Compliance parameters
EN 13823	REYNOBOND® A2 Riveted system Duragloss® 5000 35 µm finish (mounting not in accordance with §5.2.2.e of the EN13823:2002 standard – presence of a horizontal joint on the short wing)	3	FIGRA _{0.2MJ} (W/s)	1.7	-
			FIGRA _{0.4MJ} (W/s)	1.7	-
			LFS	-	Not reached
	THR _{600s} (MJ)	0.5	-		
	SMOGRA(m ² /s ²)	0.0	-		
	TSP _{600s} (m ²)	22.5	-		
	Flaming droplets or debris	-	None		
	REYNOBOND® A2 Cassette system Duragloss® 5000 35 µm finish (mounting not in accordance with §5.2.2.e of the EN13823:2002 standard – presence of a horizontal joint on the short wing)	3	FIGRA _{0.2MJ} (W/s)	3.2	-
			FIGRA _{0.4MJ} (W/s)	3.2	-
			LFS	-	Not reached
	THR _{600s} (MJ)	0.5	-		
SMOGRA(m ² /s ²)	1.0	-			
TSP _{600s} (m ²)	31.2	-			
	Flaming droplets or debris	-	None		

(-) means: not applicable

3.2 Tests results (continuation)

Test method	Product	Number of tests	Parameters	Results	
				Continuous parameters : mean value	Compliance parameters
EN 13823	REYNOBOND® A2 Riveted system Duragloss® 5000 35 µm finish (mounting in accordance with §5.2.2.e of the EN13823:2002 standard)	1	FIGRA _{0.2MJ} (W/s)	3.6	-
			FIGRA _{0.4MJ} (W/s)	3.6	-
			LFS THR _{600s} (MJ)	- 0.7	Not reached -
			SMOGRAM(m ² /s ²) TSP _{600s} (m ²)	0.9 18.1	- -
			Flaming droplets or debris	-	None
	REYNOBOND® A2 Cassette system Duragloss® 5000 35 µm finish (mounting in accordance with §5.2.2.e of the EN13823:2002 standard)	1	FIGRA _{0.2MJ} (W/s)	16.1	-
			FIGRA _{0.4MJ} (W/s)	16.1	-
			LFS THR _{600s} (MJ)	- 0.2	Not reached -
		SMOGRAM(m ² /s ²) TSP _{600s} (m ²)	1.4 20.7	- -	
		Flaming droplets or debris	-	None	

(-) means: not applicable

The tests carried out according to the EN 13823:2002 standard with a compliant mounting and with a specific mounting (see details in test report RA13-0266) have shown similar results in terms of Reaction to Fire classification.

3.2 Tests results (continuation)

Test method	Product	Number of tests	Parameters	Results	
				Continuous parameters : mean value	Compliance parameters
EN ISO 1716	Substantial component (core)	3 (per component)	PCS (MJ/kg)	2.1	-
	External non-substantial component visible side (primer + finish - worst case: Duragloss® 5000 35 µm finish)		PCS (MJ/m ²)	1.0	
	Internal non-substantial component (polyethylene film + back coat)		PCS (MJ/m ²)	2.2	
	External non-substantial component non-visible side (primer + finish - worst case: Duragloss® 5000 35 µm finish)		PCS (MJ/m ²)	1.0	
	Product on its whole (worst case: Duragloss® 5000 35 µm finish)	-	PCS (MJ/kg)	2.1	

(-) means: not applicable

4. Classification and direct field of application

4.1 Reference of the classification

This classification has been carried out in accordance with clauses 11.7.3, 11.9.2 and 11.10.1 of the NF EN 13501-1+A1:2013 standard.

4.2 Classification

Fire behaviour		Smoke production		Flaming droplets or debris
A2	-	s1	,	d0

Classification: A2 - s1, d0

4.3 Field of application

This classification is valid for the following product parameters:

- The system described in paragraph 2.
- An overall nominal thickness of 4 mm.
- An overall nominal weight per unit area of 8.12 kg/m².
- 35 µm thick Duragloss[®] 5000 and 35 µm thick PVDF 70/30 finishes.
- Various colours.

This classification is valid for the following end use conditions:

- Riveted or screwed system and cassette system on metal substructure.
- With a minimum air gap of 20 mm.
- Without insulating material or with any A1 or A2-s1,d0 class mineral wool insulating material.
- Without substrate or with any A1 or A2-s1,d0 class substrate with a density ≥ 615 kg/m³.

Champs-sur-Marne, September 17th, 2013

**The Head of Reaction to Fire Unit
Responsible for the test**



Gildas CREACH

The Head of Reaction to Fire activity



Martial BONHOMME

.....END OF THE CLASSIFICATION REPORT