



warringtonfiregent
global safety

MEMBER OF  TESTING GROUP

Reaction to fire classification report Nr 12685C

Owner of the classification report

ALUTHERMO S.A.
Rue Principale 93b
B-4790 BURG-REULAND
BELGIUM

Introduction

This classification report defines the classification assigned to the product '**Aluthermo Quattro**' in accordance with the procedures given in the standard EN 13501-1: 2002: Fire classification of construction products and building elements - Part 1: classification using data from reaction to fire tests.

This classification report consists of 5 pages



WFRGENT NV - Ottergemsesteenweg-Zuid 711 - B-9000 Gent - België
t: +32/(0)9 243 77 50 - f: +32/(0)9 243 77 51 - e: info@warringtonfiregent.net
BTW/VAT/TVA BE0870.418.414 - Ondernemingsnummer : RPR 0870.418.414 GENT



1. DETAILS OF CLASSIFIED PRODUCT

a) Nature and end use application

The product "**Aluthermo Quattro**" is defined as 'flexible thermal insulation'. Its classification is valid for the following end use application(s):
'Used for thermal insulation of roofs and walls'.

b) Description

The product "**Aluthermo Quattro**" of a multi-layer, reflective and semi-rigid insulation foam, composed out of the following layers:

1. A layer of polished and anti-oxidation treated, pure aluminium foil, 30 microns thick, with nitro-cellulose lacquer: 81 g/m ²
2. A layer of honeycombed, dry air bubbles enclosed in fire-retardant polyethylene, 150 microns thick, diameter 10mm, height 4mm: 138 g/m ²
3. A layer of pure aluminium foil, 10 microns thick with a PE coating on both sides: 108 g/m ²
4. A fire-retardant and water-repellent polyethylene foam, 3mm thick, density 25 kg/m ³ : 75 g/m ²
5. A layer of pure aluminium foil, identical to 3.
6. A layer of dry air polyethylene bubbles, identical to 2.
7. A layer of pure aluminium foil, identical to 1.

	Nominal values
Total thickness (mm)	10
Total mass per unit area (g/m ²)	729

Mounting and fixing: The product was screwed onto a calcium silicate board of 12mm thick and having a density of 870 kg/m³. The product was tested without joints. The edges of the foil and the corner joint were protected with aluminium foil. 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
WFRGENT N.V. Ghent, Belgium	ALUTHERMO S.A.	12685A	EN 13823 (February 2002)
WFRGENT N.V. Ghent, Belgium	ALUTHERMO S.A.	12685B	EN ISO 11925-2 (February 2002)

b) Test results

Test method	Parameter	Number of tests	Results		Criteria for Class B-s1,d0	
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters
EN ISO 11925-2 (*) 30s flame application: <u>Surface exposure</u> - front side <u>Edge exposure</u> - front side	$F_s \leq 150\text{mm}$ Ignition filter paper	6	(-)	Yes	(-)	Yes
			(-)	No	(-)	No
	$F_s \leq 150\text{mm}$ Ignition filter paper	6	(-)	Yes	(-)	Yes
			(-)	No	(-)	No
EN 13823	FIGRA _{0,2 MJ} (W/s)	3	31	(-)	≤ 120	(-)
	FIGRA _{0,4 MJ} (W/s)		(-)	(-)	(-)	(-)
	LFS _{<edge}		(-)	Yes	(-)	Yes
	THR _{600s} (MJ)		2,6	(-)	$\leq 7,5$	(-)
	SMOGRA (m ² /s ²)		1	(-)	≤ 30	(-)
	TSP _{600s} (m ²)		30	(-)	≤ 50	(-)
	Flaming droplets/particles f<10s		(-)	Yes	(-)	Yes
	f>10s		(-)	No	(-)	No

(-) Not applicable

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

3. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

a) Reference and direct field of application

This classification has been carried out in accordance with clause 10.6 of EN 13501-1: 2002.

b) Classification

The product "Aluthermo Quattro" in relation to its reaction to fire behavior is classified as:

Fire behavior	Smoke production	Flaming droplets
B	s1	d0

c) Field of application

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

- Fixing & Substrate: screwed on any substrate with a fire performance of A2 or better with a density of equal to or greater than 870 kg/m³ and a thickness of equal to or greater than 11 mm.
- Without a void
- No joints
- With protection of the cut edges and the corner joint

This classification is valid for the following product parameters:

- Nominal thickness : 10 mm
- Nominal mass per unit area: 729 g/m²

4. RESTRICTIONS

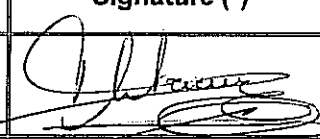

At the time the standard EN 13501-1 (February 2002) was published, no decision was made concerning the duration of validity of a classification report.

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 certification body within the context of a system 1 attestation of conformity and CE marking under the Construction Products Directive, as the sampling was performed by a notified body."

Report	Name	Signature (*)	Date
Prepared by	Ing. Frans DUTRIEUE		16 APR. 2007
Reviewed by	Prof. Dr. Ir. Paul VANDELVE		16 APR. 2007
(*) For and on behalf of "WFRGENT N.V."			

EN 13501-1 B-C-D WG 2E*

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Mounting specifications (*)

