

Reaction to fire classification report no. 062731.1 - Re

Reaction to fire classification report of faced mineral wool products
„ASTROTHERM ASA“
produced in the plant Diekirch, Luxembourg

sponsor: **ASTRON BUILDINGS S.A.**
 Route d'Ettelbruck

 L - 9202 Diekirch

order from: **29.06.2006 – A. Collignon**

This classification report defines the classification assigned to the building product
„ASTROTHERM ASA“
in accordance with the procedures given in EN 13501-1.



This reaction to fire classification report consists of 4 pages and may only be used or reproduced in its entirety.

Der Klassifizierungsbericht darf nur ungekürzt veröffentlicht werden.
Die auszugsweise Wiedergabe bedarf der schriftlichen Zustimmung der Prüfstelle.

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1. Details of classified products

1.1 Nature and end use application

The product „ASTROTHERM ASA“ is a mineral wool mat faced with a compound aluminium foil and is defined as being suitable for wall or ceiling applications.

1.2 Description

The product „ASTROTHERM ASA“ is fully described in the test reports provided in support of the classification listed in clause 2.1.

According to the owner of this classification report, this product complies with the following European product specification:

EN 13162: 2001-10 - Thermal insulation products for buildings - Factory made mineral wool (MW) products - Specification

2. Test reports and test results in support of this classification

2.1 Test reports

Name of laboratory	Name of sponsor	Test report no.	Test method
MPA BAU HANNOVER	Astron Buildings S.A.	030799 - Dra	EN 13823: 2002-02
MPA BAU HANNOVER	Astron Buildings S.A.	061674 - Dra	EN 13823: 2002-02
MPA BAU HANNOVER	Astron Buildings S.A.	030958 - Re	EN ISO 1182: 2002-02
MPA BAU HANNOVER	Astron Buildings S.A.	030128 - Re	EN ISO 1716: 2002-02
MPA BAU HANNOVER	Astron Buildings S.A.	030134 - Re	EN ISO 1716: 2002-02
MPA BAU HANNOVER	Astron Buildings S.A.	030160 - Re	EN ISO 1716: 2002-02

2.2 Gross heat of combustion – PCS values

2.2.1 PCS values of aluminium compound foil

Product components	Weight per unit area	Gross heat of combustion PCS	
	g/m ²	MJ/kg	MJ/m ²
painting	3,5	8,32	0,03
aluminium foil	54,0	-	-
glass fabrics RG 2/2	16,3	2,35	0,04
PE-foil	4,0	43,19	0,17
aluminium foil	32,4	-	-
compound foil „ASA“	110,2	2,18	0,24

2.2.2 Gross heat of combustion – PCS values of „ASTROTHERM ASA“

Product/Component	Weight per unit area	Gross heat of combustion PCS	
	g/m ²	MJ/kg	MJ/m ²
compound foil „ASA“	110	2,18	0,24
glue „48267“	35	9,04	0,32
mineral wool (40 mm)	730	1,44	1,05
mineral wool (120 mm)	1895	1,44	2,73
product (40 mm)	875	1,84	1,61
product (120 mm)	2040	1,61	3,29

2.3 Test results of „ASTROTHERM ASA“

Test method	Parameter	Number of tests	Results	
			Continuous parameter	Compliance parameter
EN ISO 1182	ΔT (°C)	5	5,3	-
	Δm (%)	5	5,5	-
	t_f (s)	5	0	-
EN ISO 1716	PCS (MJ/kg) - mineral wool (1) - product (4)	3 -	1,44 1,84	- -
	PCS (MJ/m ²) - facing (2)	3	0,56	-
	EN 13823	FIGRA _{0,2 MJ}	3	4
FIGRA _{0,4 MJ}		3	4	-
LFS < edge		3	-	Y
THR _{600s} (MJ)		3	0,7	-
SMOGRAM ² /s ²)		3	0	-
TSP _{600 s} (m ²)		3	33	-
Flaming droplets / particles		3	-	N

(1) substantial component of a non-homogeneous product
(2) external non-substantial component of a non-homogeneous product
(4) product as a whole

3. Classification and direct field of application

3.1 Reference

This classification has been carried out in accordance with clauses 10.8.2 and 12.1 of EN 13501-1: 2002-02.

3.2 Classification

The product „ASTROTHERM ASA“ in relation to its reaction to fire behaviour is classified:

A 1

3.3 Field of application

This classification is valid for all end use conditions.

This classification is also valid for the following product parameters:

- nominal thickness of the products: 40 mm - 120 mm
- nominal density of the mineral wool: $\leq 16 \text{ kg/m}^3$

4. Limitations

4.1 Warning

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

Hannover, 28.09.2006

Head of fire laboratory



(ORR Dipl.-Ing. Restorff)

