

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1:2009

Classification no.	2015-Efectis-R001057
Sponsor	TTM srl Kiefernheinweg 102/A 39026 PRAD ITALY
Product name	ISOLPAK ALU
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	A.J. Lock E.O. van der Laan M.Sc.
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1. INTRODUCTION

This classification report defines the classification assigned **ISOLPAK ALU**, applied onto Rockwool pipe insulation, in accordance with the procedures given in EN 13501-1:2007+A1:2009.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **ISOLPAK ALU**, is defined as a cladding for pipe insulation.

2.2 MANUFACTURER

TTM srl
Kiefernainweg 102/A
39026 PRAD
ITALY

2.3 PRODUCT DESCRIPTION

According to the sponsor the product is composed of:

Weather protection film / adhesive / aluminium foil / adhesive / PVC film at inside.

Total thickness: 350 µm.

The cladding is fixed with staples to the insulation:

- Rockwool type 851, PROROX PS 960 pipe insulation Ø 72 mm (22/25), 0.6 kg/m
 - Rockwool type 851, PROROX PS 960 pipe insulation Ø 122 mm (22/50), 1.7 kg/m
- Rockwool, density 140 kg/m³

The joints of the product are covered with an aluminium tape, type 1517CW, manufactured by Venture Tape, Rockland, USA. Aluminium film thickness: 30 µm.

The total product has a total thickness of 25 - 50 mm, a mass per length of approx. 0.75 - 2.1 kg/m.

3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

3.1 APPLICABLE (PRODUCT) STANDARDS

EN 14303:2009+A1:2013 Thermal insulation products for building equipment and industrial installations - Factory made mineral wool (MW) products - Specification

EN 15715:2009 Thermal insulation products - Instructions for mounting and fixing for reaction to fire testing - Factory made products

3.2 REPORTS

Name of Laboratories	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	2015-Efectis-R001017 2015-Efectis-R001018 2015-Efectis-R001019	EN ISO 11925-2:2010 EN 13823:2014 EN 13823:2014

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN ISO 11925-2				
surface flame impingement	$F_s \leq 150$ mm	6	31	-
	Ignition of filter paper		-	Compliant
Edge flame impingement	$F_s \leq 150$ mm	6	52	-
	Ignition of filter paper		-	Compliant
EN 13823				
25 mm	FIGRA _{0,2MJ} [W/s]	3	167	-
	FIGRA _{0,4MJ} [W/s]		115	-
	THR _{600s} [MJ]		1.4	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		120.5	-
	TSP _{600s} [m ²]		84	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant
EN 13823				
50 mm	FIGRA _{0,2MJ} [W/s]	3	205	-
	FIGRA _{0,4MJ} [W/s]		136	-
	THR _{600s} [MJ]		1.5	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		122.5	-
	TSP _{600s} [m ²]		74	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant

3.4 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Linear pipe thermal insulation products			
Classification criteria			
Class Test method(s)	B	C	D
EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150$ mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
EN 13823	$FIGRA_{0,2 MJ} \leq 270$ W/s LFS < edge of specimen $THR_{600s} \leq 7.5$ MJ	$FIGRA_{0,4 MJ} \leq 460$ W/s LFS < edge of specimen $THR_{600s} \leq 15$ MJ	$FIGRA_{0,4 MJ} \leq 2100$ W/s $THR_{600s} \leq 100$ MJ
Additional classification			
Smoke production	s1 = $SMOGRA \leq 105$ m ² /s ² and $TSP_{600s} \leq 250$ m ² ; s2 = $SMOGRA \leq 580$ m ² /s ² and $TSP_{600s} \leq 1600$ m ² ; s3 = not s1 or s2		
Flaming Droplets/particles	d0 = no flaming droplets/ particles in EN 13823 within 600 s; d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s; d2 = not d0 or d1.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 13 of EN 13501-1:2007+A1:2009.

4.2 CLASSIFICATION

The product, ISOLPAK ALU, applied onto Rockwool pipe insulation PROROX PS 960, in relation to its reaction to fire behaviour is classified:

B_L

The additional classification in relation to smoke production is:

s2

The additional classification in relation to flaming droplets / particles is:

d0

Reaction to fire classification: B_L - s2, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

Thickness cladding	350 µm
Fixing	The cladding is fixed with staples to the insulation
Application	Applied onto Rockwool PROROX PS 960 pipe insulation Density insulation: 140 kg/m ³ Thickness insulation: 25- 50 mm
Joints of the pipe insulation are covered with	Aluminium tape, type 1517CW, from Venture Tape, Rockland, USA

This classification is valid for the following end use applications:

Substrate	Non-combustible (class A1/A2 according to EN 13238:2010) Minimum class A2 according to EN 13238:2010
Application	Free standing
Methods and means of fixing	mechanically
Joints	yes
Other aspects of end use conditions	Closed surface, no openings or gaps between components

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.

5. LIMITATIONS

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

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 **Assessment and Verification of Consistency of Performance (AVCP)** and **CE marking** under the **Construction Products Regulation**.

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 AVCP is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.



A.J. Lock
Team leader reaction to fire



E.O. van der Laan M.Sc.
Project leader reaction to fire