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Testing. Advising. Assuring.

**Title:**

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

**Notified Body No:**

0833

**Product Name:**

"Glasswool Faced With  
Aluglass and Self-Seal  
Adhesive"

**Report No:**

WF 370053

**Issue No:**

1

**Prepared for:**

Kuwait Insulating Material  
Manufacturing Co (KIMMCO)  
P.O. Box 10042  
Shuaiba  
65451  
Kuwait

**Date:**

1<sup>st</sup> August 2016



## 1. Introduction

This classification report defines the classification assigned to “Glasswool Faced With Aluglass and Self-Seal Adhesive”, a Self adhesive foil faced glass wool insulation, in line with the procedures given in EN 13501-1:2007+A1: 2009.

## 2. Details of classified product

### 2.1 General

The product, “Glasswool Faced With Aluglass and Self-Seal Adhesive”, a Self adhesive foil faced glass wool insulation, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

### 2.2 Product description

The product, “Glasswool Faced With Aluglass and Self-Seal Adhesive”, a Self adhesive foil faced glass wool insulation, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Self adhesive foil faced glass wool insulation
Product reference		“Glasswool Faced With Aluglass and Self-Seal Adhesive”
Name of manufacturer		Kuwait Insulating Material Manufacturing Co (KIMMCO)
Thickness		25mm ±3mm
Density of composite		62.16kg/m <sup>3</sup> (determined by <b>Exova Warringtonfire</b> )
Foil	Generic type	Aluminium
	Product reference	“Aluminium Foil”
	Name of manufacturer	<b>See Note 1 below</b>
	Thickness	20microns
	Density	2.7kg/m <sup>3</sup>
	Colour reference	“Silver”
	Flame retardant details	<b>See Note 2 below</b>
Adhesive	Generic type	<b>See Note 3 below</b>
	Product reference	“Flame Retardant Adhesive, High Temperature Resistant”
	Name of manufacturer	<b>See Note 3 below</b>
	Colour reference	<b>See Note 3 below</b>
	Application rate	<b>See Note 3 below</b>
	Application method	<b>See Note 3 below</b>
	Flame retardant details	<b>See Note 3 below</b>
	Curing process	<b>See Note 3 below</b>

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Glass cloth	Generic type	Fiberglass
	Product reference	"Fiberglass Cloth"
	Name of manufacturer	<b>See Note 1 below</b>
	Colour reference	"White"
	Thickness	150microns
	Weight per unit area	101g/m <sup>2</sup>
	Type of weave	Plain weave
	Cell dimensions	0.83mm x 0.91mm
	Flame retardant details	<b>See Note 2 below</b>
Adhesive	Generic type	Water based
	Product reference	"Flame Retardant Water Based Adhesive"
	Name of manufacturer	<b>See Note 1 below</b>
	Colour reference	"White"
	Application rate	40±10g/m <sup>2</sup>
	Application method	On-line
	Flame retardant details	<b>See Note 3 below</b>
	Curing process	Drying
Insulation	Generic type	Glasswool
	Product reference	"Glass Fiber Bonded With Thermosetting Resin"
	Name of manufacturer	Kuwait Insulating Material Manufacturing Co (KIMMCO)
	Colour reference	"Yellow"
	Thickness	25mm
	Density	48kg/m <sup>3</sup>
	Generic type of resin	Phenolic
	Product reference of resin	<b>See Note 1 below</b>
	Amount of resin	3.07 % (of 3.5% binder content)
	Generic type of oil	Emulsion
	Product reference of oil	"Oil Emulsion"
	Amount of oil	0.30 % (of 3.5% binder content)
	Flame retardant details	<b>See Note 2 below</b>
Self-adhesive seal	Generic type	<b>See Note 3 below</b>
	Product reference	"Aggressive Transparent Synthetic Rubber"
	Name of manufacturer	<b>See Note 1 below</b>
	Colour reference	"Transparent"
	Application rate	65±10g/m <sup>2+</sup>
	Application method	On-line
	Flame retardant details	<b>See Note 3 below</b>
	Curing process	Drying

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Substrate	Product reference	"Promat brandschutzbauplatten "Promatect-H"
	Generic type	Calcium Silicate
	Name of manufacturer	Promat
	Thickness	12mm
	Density	870 kg/m <sup>3</sup>
	Fittings/Fixtures/Adhesive	<div style="text-align: center;"> </div> <p>The insulation slabs were fastened to the substrate utilising screws of 4mm diameter and 20mm length placed through the reverse face of the substrate and into the mineral wool thermal insulation slab. A diagram of the placement of the fixings is shown above.</p>
Mounting details	Each specimen was tested with the reverse face of the substrate butted directly against the calcium silicate backing board (as specified in EN 13238: 2010).	
Joint details	In accordance with section 5.2.2 e) of the standard, joint details were included on the long wall of each specimen. The joints comprised one butt joint running vertically at a distance of 200mm from the inside corner of the wall and one butt joint running horizontally at a distance of 500mm from the base of the wall, as measured when the specimens were mounted in the test apparatus and ready for testing.	
Brief description of manufacturing process	Transfer molten glass into fibrous material using centrifuge process, fibrous material is bonded with thermosetting resin	

Note 1: The sponsor was unwilling to provide this information.

Note 2: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

Note 3: The sponsor was unable to provide this information.

The description of the specimens as given above is not as detailed as would usually be the case for descriptions included in **Exova Warringtonfire** test reports and the description may not fully comply with the requirements of the test standard. In all other respects however the tests were conducted fully in accordance with the requirements of the test standard and the test results are valid.

### 3. Test reports & test results in support of classification

#### 3.1 Test reports

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
Exova Warringtonfire	Kuwait Insulating Material Manufacturing Co (KIMMCO)	WF 369239	EN ISO 11925-2
		WF 369238	EN 13823

#### 3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN ISO 11925-2 (30s exposure - surface)	F <sub>s</sub>	6	Nil	Compliant
	Flaming droplets/ particles		None	Compliant
EN ISO 11925-2 (30s exposure - edge)	F <sub>s</sub>	6	40	Compliant
	Flaming droplets/ particles		None	Compliant
EN ISO 11925-2 (30s exposure - edge turned at 90 degrees)	F <sub>s</sub>	6	Nil	Compliant
	Flaming droplets/ particles		None	Compliant
EN 13823	FIGRA <sub>0.2MJ</sub>	3	0.00	Compliant
	FIGRA <sub>0.4MJ</sub>		0.00	Compliant
	THR <sub>600s</sub>		0.74	Compliant
	LFS		None	Compliant
	SMOGRA		0.00	Compliant
	TSP <sub>600s</sub>		21.00	Compliant

#### 4. Classification and field of application

##### 4.1 Reference of classification

This classification has been carried out in accordance with clause 10 of EN 13501-1:2007+A1:2009.

##### 4.2 Classification

The product, "Glasswool Faced With Aluglass and Self-Seal Adhesive", a Self adhesive foil faced glass wool insulation, in relation to its reaction to fire behaviour is classified:

**B**

The additional classification in relation to smoke production is:

**s1**

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

**d0**

The format of the reaction to fire classification for construction applications, excluding flooring and linear pipe thermal insulation is:

Fire Behaviour		Smoke Production			Flaming Droplets	
<b>B</b>	-	<b>s</b>	<b>1</b>	,	<b>d</b>	<b>0</b>

i.e. **B – s1 , d0**

## Reaction to fire classification: B – s1, d0

### 4.3 Field of application

This classification is valid for the following end use applications:

- i) Linear pipe thermal insulation

This classification is also valid for the following product parameters:

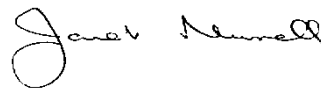
Thickness of insulation	25mm or thinner
Product density	±15%
Facing type	Tested product only
Facing thickness / weight per unit area	The result obtained for Euroclass A1 and A2 facings will also be valid for thicker facings of the same types.
Product colour/pattern	No variation allowed
Product composition	No variation allowed
Product construction	No variation allowed

#### SIGNED



.....  
**Matthew Dale**  
Senior Certification Engineer  
Technical Department

#### APPROVED



.....  
**Janet Murrell**  
Technical Manager  
Technical Department  
on behalf of **Exova Warringtonfire**

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