

Warmfiber Isolering AB  
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## Classification of reaction to fire in accordance with EN 13501-1

### 1 Introduction

This classification report defines the classification assigned to “Warmfiber Plus” in accordance with the procedure given in EN 13501-1:2018.

### 2 Details of classified product

#### 2.1 General

The product “Warmfiber Plus” is defined as a loose wool insulation. Its classification is valid for the following end use applications: Insulation of walls, ceilings, floors and roofs.

#### 2.2 Product description

The product, "Warmfiber Plus" (as described by the sponsor), is fully described below or is fully described in the test report provided in support of classification listed in Clause 3.1.

Loose wool product called “Warmfiber Plus”, consisting of 95% vegetable fibres and 5% boric acid (by weight). The product has a nominal density range of 28 - 60 kg/m<sup>3</sup>.

### 3 Reports and results in support of this classification

#### 3.1 Test reports

Table 1 Test report forming the basis for this classification.

Name of laboratory	Name of sponsor	Test report reference no	Accredited test methods and date
RISE	Warmfiber Isolering AB	O100741-1176232	EN 13823:2020+A1:2022 and EN ISO 11925-2:2020

#### 3.2 Test results

The test results listed below show the worst case as found in the test programme performed and reported according to the table above. The tests have been carried out on products covering the density range of the product.

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Confidentiality level  
C3 - Sensitive

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Table 2 Test results showing the worst case as found in the test program performed.

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance with parameters
EN ISO 11925-2		6		
Surface flame attack*				
30 s exposure	$F_s \leq 150$ mm		(-)	Compliant
Flaming droplets/particles	Ignition of filter paper		(-)	No ignition of filter paper
EN 13823		4		
	$FIGRA_{0,2MJ}$ (W/s)		377	Compliant
	$FIGRA_{0,4MJ}$ (W/s)		220	Compliant
	$LFS < \text{edge}$		(-)	Compliant
	$THR_{600s}$ , (MJ)		4.9	Compliant
	$SMOGRA$ , (m <sup>2</sup> /s <sup>2</sup> )		0	Compliant
	$TSP_{600s}$ , (m <sup>2</sup> )		30	Compliant
	Flaming droplets/particles		(-)	No flaming droplets/particles

\* : as required to the end use application of the product

(-) : not applicable

## 4 Classification and field of application

### 4.1 Reference of classification

This classification has been carried out in accordance with clause 11 and 15 of EN 13501-1:2018.

### 4.2 Classification

The product called “Warmfiber Plus” in relation to its reaction to fire behaviour is classified:

D

The additional classification in relation to smoke production is:

s1

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

d0

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation product is:

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

### 4.3 Field of application:

This classification is valid for the following product parameters:

Product description, as specified in 2.2 in this report

Nominal density: 28 - 60 kg/m<sup>3</sup>.

Fire retardant type: Boric acid.

Fire retardant nominal weight percentage: 5 %.

This classification is valid for the following end use conditions:

Substrates

- Wood based substrates at least 10 mm thick and any end use substrate of Euroclasses A1 or A2-s1,d0 at least 6 mm thick, having a density  $\geq 510$  kg/m<sup>3</sup>.

The sample was delivered by the client. RISE, Fire and Safety was not involved in the sampling procedure.

## 5 Limitations

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

### RISE Research Institutes of Sweden AB Fire and safety - Reaction to Fire Medium Scale Lab

Performed by

Richard Johansson

Examined by

Per Thureson

# Verifikat

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## Dokument

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## Signerande parter

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