

# Mfpa Leipzig GmbH

Testing, inspection and certification body for  
building materials, building products and building systems

**Division III - Structural Fire Protection**

Dipl.-Ing. Sebastian Hauswaldt

**Team 3.1 - Fire behaviour of Building Products**

Mathias Claus

Phone +49 (0) 341-6582-125

claus@mfpa-leipzig.de

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## Classification report no. KB 3.1/15-292-4

from 04 September 2015

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Client: Wallguard Systems Ltd  
Unit 5 Archers Park,  
Branbridges Road,  
East Peckham,  
Tonbridge,  
Kent TN12 5HP  
United Kingdom

Order: Fire behaviour classification according to DIN EN 13501-1:2010\*

Subject matter: System for decorative wall covering "Systemx – Opti Emulsion" according to  
DIN EN 15102:2011-12

Date of order: 13. July 2015

Person in charge: Mathias Claus

This document consists of 5 pages.

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Accredited by DAkKS GmbH. DIN EN ISO/IEC 17025 accredited inspection body, DIN EN ISO/IEC 17020 accredited inspection body, DIN EN ISO/IEC 17065 accredited inspection body. The accreditations only apply for the testing methods listed in the certificate (marked with \* in this document). The certificate can be seen at [www.mfpa-leipzig.de](http://www.mfpa-leipzig.de).

Approved test centre according to the *Landesbauordnung* [state building code] (SAC 02) and notified testing laboratory, inspection body and certification body (PÜZ-Stelle) according to the Construction Products Regulation (NB 0800).

Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH (Mfpa Leipzig GmbH)

Registered offices: Hans-Weigel-Str. 2b – 04319 Leipzig/Germany

Managing Director: Prof. Dr.-Ing. Frank Dehn

Company Register: District Court Leipzig HRB 17719

VAT ID No.: DE 813200649

Tel.: +49 (0) 341-6582-0

Fax: +49 (0) 341-6582-135

## 1 Details of the classified product

### 1.1 General remarks

According to the client, the building product "Systexx – Opti Emulsion" is a decorative wall covering product. According to the client, this building product is subjected to the harmonised European product standard DIN EN 15102:2011-12.

### 1.2 Description

The building product "Systexx – Opti Emulsion" is described in the reports which are referred to in 2.1 for verification of the classification.

The following characteristics of the system were indicated by the client.

designation	Thickness [mm]	Area density [g/m <sup>2</sup> ]	Loss on ignition [g/m <sup>2</sup> ]
Plasterboard	approx. 12.5	-	-
10 simulated old coatings	approx. 0.67 Total	approx. 100 per coat	-
SYSTEXX Premium Exclusive 060 Gross area density Area density of finish Amount of applied glue Total area density	approx. 0.56	155 ± 10% 45 ± 15% 25 ± 15% 225 ± 15%	approx. 70
2 coats of paint OPTIBACT, Opti Emulsion	0.1 Total	approx. 100 per coat	-
Total thickness	approx. 13.83	-	-

## 2 Test reports and test results as a basis for the classification

### 2.1 Reports

Name of laboratory	Client	Report no.	Test method
MFPA Leipzig GmbH	Wallguard Systems Ltd	PB3.1/15-292-2 from 01/09/2015	DIN EN 13823
MFPA Leipzig GmbH	Wallguard Systems Ltd	PB3.1/14-429-5 from 12/02/2015	DIN EN 13823
MFPA Leipzig GmbH	Wallguard Systems Ltd	PB3.1/14-429-4 from 12/02/2015	DIN EN ISO 11925-2

## 2.2 Results

Test method and test number	Parameter	Numbers of tests	Results	
			constant parameters average value (m)	discrete parameters
DIN EN ISO 11925-2	$F_s \leq 150\text{mm}$	8	(-)	concurrent
	Flaming droplets/particles		(-)	concurrent
DIN EN 13823	FIGRA <sub>0,2 MJ</sub> [W/s]	3	32	(-)
	FIGRA <sub>0,4 MJ</sub> [W/s]		24	(-)
	THR <sub>600s</sub> [MJ]		1.2	(-)
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		0	(-)
	TSP <sub>600s</sub> [m <sup>2</sup> ]		29	(-)
	no lateral flame spread (LFS) to the edge of the sample		(-)	concurrent
	Flaming droplets/particles		(-)	concurrent
Flaming droplets/particles, > 10s	(-)	concurrent		

(-) not applicable

## 3 Classification and field of application

### 3.1 Reference for classification

This classification was carried out in accordance with DIN EN 13501-1:2010 and according to DIN EN 15102:2011-12.

### 3.2 Classification

In terms of fire behaviour, the building product "Systexx – Opti Emulsion"

is classified as follows:

B

The additional classification regarding the development of smoke is:

s1

The additional classification regarding flaming droplets/particles is:

d0

The format of the classification of the fire behaviour for building products except for floor coverings and pipe insulations is:

Fire behaviour		Development of smoke			flaming droplets/particles	
B	-	s	1		d	0

i.e.

B-s1, d0

<b>Fire behaviour classification:</b>	<b>B-s1, d0</b>
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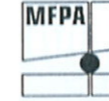
### 3.3 Area of application

This classification applies to the following product parameters:

- The composition of the product to be classified described in section 1.2 must be used according to these specifications. Further requirements under building law for the constructive design are to be considered.
- The classification applies to old coatings with a total thickness of 0.5mm at maximum.
- The classification applies to the "SYSTEXX Active S38 wall covering" with a water-activated glue layer at the back, an area density of  $245\text{g/m}^2 \pm 15\%$  and a loss on ignition of approx.  $90\text{g/m}^2$ .
- The classification applies to the "SYSTEXX Premium Exclusive 060", an area density of  $225\text{g/m}^2 \pm 15\%$  and a loss on ignition of approx.  $70\text{g/m}^2$ .
- This classification applies to the "OPTIBACT" double renovation coating specified in section 1.2 with an application volume of approx.  $100\text{g/m}^2$  per coat.

The classification applies to the following end-use applications:

- The "Systemx – Opti Emulsion" system for decorative wall covering may be used on plasterboards and on Euroclass A1 or A2-s1, d0 base coats with a gross density of  $525\text{kg/m}^3$  and a minimum thickness of 12mm.



#### 4 Restrictions

- (1) A combination with other building products, especially insulating materials with other gross density ranges than specified in section 3.3, can have an adverse effect on the fire behaviour so that the classification in section 3.2 is no longer valid. The fire behaviour in combination with other building products or for other gross density ranges or thickness ranges must be tested separately.
- (2) The classification of the building product according to this report is suitable for a manufacturer's declaration of conformity in the context of verification procedure system 3 together with a CE marking according to the Construction Products Directive.

The manufacturer has provided a declaration which was included in the documents. It confirms that the product design does not involve any specific processes, methods or procedures (e.g. no addition of flame-retardant substances, limitation of organic components or additions to filler material) improving the fire behaviour to obtain the achieved classification. As a consequence, the manufacturer came to the conclusion that system 3 of the conformity verification procedure is suitable.

Therefore, the testing centre was not part of the sample selection.

- (3) The classification document is not a type approval or product certification and does not replace a verification according to German building law (*Landesbauordnung* [state building code]), which may be required.
- (4) This classification report is valid as long as the product composition or the product design, the raw materials or the production process and the construction regulations or the basis for the evaluation do not change

This document does not replace any certificate of conformity or usability as defined by the building - regulations (national/European).

Leipzig, 04 September 2015

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Dipl.-Ing. S. Hauswaldt

*Head of Division*

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N. Neumann, M.Sc.

*Head of Laboratory*

\_\_\_\_\_  
M. Claus

*Person in charge*

#### Authentication

I have examined the German original/photocopy/facsimile and this is a true translation of the same into English.  
Barbara Wohanka, registered translator for the English language at the District Court of Landshut, Germany

Geisenhausen, 30 October 2015

