iBMB MPA TU BRAUNSCHWEIG
Institut für Baustoffe, Massivbau und Brandschutz | Materialprüfanstalt für das Bauwesen

Classification of reaction to fire in accordance with EN 13501-1

- Translation -

No. of Classification Report: K-3368/439/14-MPA BS

Client:
Décor Ireland
9 Rathdown Close
Lissue Industrial Estate
LISBURN
Co. Antrim
BT28 2RB

Classification item:
Intumescent fire protection dispersion for timber and composite wood:

- Zeroflame Fire Retardant Paint,
- Zeroflame Fire Retardant Paint with Zeroflame Primer,
- Zeroflame Fire Retardant Paint with Zeroflame Primer and Zeroflame Finish

Basis for classification: DIN EN 13501-1:2007

Number of the notified testing laboratory: 0761-CPD

Issued on: 10/06/2014

Notes: This document is not issued for type approval or construction product certification.

Materialprüfanstalt f. d. Bauwesen MPA BS 3.1 Braunschweig

This Classification Report consists of 8 pages.

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Notified body (0761-CPD)
MPA Braunschweig has been approved and notified as a civil engineering supervisory, inspection and certification body. MPA Braunschweig has been ISO/IEC17025 accredited as a testing and calibration laboratory and ISO/IEC17020 accredited as an inspection body.

1 General

This Classification Report describes the classification that is assigned to the „Zeroflame Fire Retardant Paint" product without or together with the "Zeroflame Finish" top coat and the „Zeroflame Primer" on the basis of the test method specified in DIN EN 13501-1:2007.

2 Details of the classified construction product

2.1 Type and application

The product is an intumescent fire protection dispersion for timber and composite wood materials for indoor applications.

2.2 Description of the construction product

The product is described in detail in the Test Reports that are listed in section 3 below and on which this classification is based.

3 Test reports and test results for classification

3.1 Test reports

Name of testing laboratory	Client	Number of the Test Report	Test method
MPA Braunschweig	Rütgers Organics GmbH	3145/467/08-a	EN 13823
MPA Braunschweig	Rütgers Organics GmbH	3145/467/08-b	EN ISO 11925-2

3.2 Test results

3.2.1 Test results for the "Zeroflame Fire Retardant Paint" product on a 13-mm chip board

Test method	Parameter	Number of tests	Test results	
			Continuous parameters	Discrete parameters
EN 13823	$FIGRA_{0.2\ MJ}$ [W/s]	3	8	--
	$FIGRA_{0.4\ MJ}$ [W/s]	3	5	--
	THR_{600s} [MJ]	3	0.6	--
	LFS < edge	3	--	Complied with
	SMOGRA [m^2/s^2]	3	19	--
	TSP_{600s} [m^2]	3	63	--
	Burning droplets/ falling burning particles	3	--	No

EN ISO 11925-2				
Flames applied to surface				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No
Flames applied to edge				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No

3.2.2 Test results for the "Zeroflame Fire Retardant Paint"with "„Zeroflame Finish"" top coat on a 13-mm chip board

Test method	Parameter	Number of tests	Test results	
			Continuous parameters (mean value)	Discrete parameters
EN 13823	$FIGRA_{0.2\ MJ}$ [W/s]	3	92	--
	$FIGRA_{0.4\ MJ}$ [W/s]	3	7	--
	THR_{600s} [MJ]	3	0.7	--
	LFS < edge	3	--	Complied with
	SMOGRA [m^2/s^2]	3	4	--
	TSP_{600s} [m^2]	3	45	--
	Burning droplets/ falling burning particles	3	--	No
EN ISO 11925-2				
Flames applied to surface				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No
Flames applied to edge				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No

3.2.3 Test results for the „Zeroflame Fire Retardant Paint“ product with primer "Zeroflame Primer“ and „Zeroflame Finish“ top coat on a 13-mm chip board

Test method	Parameter	Number of tests	Test results	
			Continuous parameters (mean value)	Discrete parameters
EN 13823	$FIGRA_{0.2\ MJ}$ [W/s]	3	94	--
	$FIGRA_{0.4\ MJ}$ [W/s]	3	11	--
	THR_{600s} [MJ]	3	1.3	--
	LFS < edge	3	--	Complied with
	SMOGRA [m²/s²]	3	0.7	--
	TSP_{600s} [m²]	3	46	--
	Burning droplets/falling burning particles	3	--	No
EN ISO 11925-2				
Flames applied to surface				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No
Flames applied to edge				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No

3.2.4 Test results for the „Zeroflame Fire Retardant Paint“ product on a 10-mm solid-wood board

Test method	Parameter	Number of tests	Test results	
			Continuous parameters	Discrete parameters
EN 13823	$FIGRA_{0.2\ MJ}$ [W/s]	3	15	--
	$FIGRA_{0.4\ MJ}$ [W/s]	3	3	--
	THR_{600s} [MJ]	3	0.4	--
	LFS < edge	3	--	Complied with
	SMOGRA [m²/s²]	3	48	--
	TSP_{600s} [m²]	3	77	--
	Burning droplets/ falling burning particles	3	--	No

EN ISO 11925-2				
Flames applied to surface				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No
Flames applied to edge				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No

3.2.5 Test results for the „Zeroflame Fire Retardant Paint“ product with „Zeroflame Finish“ top coat on a 19-mm solid-wood board

Test method	Parameter	Number of tests	Test results	
			Continuous parameters (mean value)	Discrete parameters
EN 13823	$FIGRA_{0.2\ MJ}$ [W/s]	3	97	--
	$FIGRA_{0.4\ MJ}$ [W/s]	3	10	--
	THR_{600s} [MJ]	3	0.6	--
	LFS < edge	3	--	Complied with
	SMOGRA [m^2/s^2]	3	9	--
	TSP_{600s} [m^2]	3	48	--
	Burning droplets/ falling burning particles	3	--	No
EN ISO 11925-2				
Flames applied to surface				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No
Flames applied to edge				
30 s fire exposure	FS ≤ 150 mm	6	-	Complied with
Burning droplets/falling burning particles	Ignition of the filter paper	6	-	No

4 Classification and field of direct application

4.1 Classification basis

This classification was made in compliance with DINEN 13501-1:2007, section 11.6.

4.2 Classification

The following reaction-to-fire performance class is assigned to the product:

„Zeroflame Fire Retardant Paint“	B
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat	B
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat and primer „Zeroflame Primer“	B

The additional classification regarding smoke production is:

„Zeroflame Fire Retardant Paint“	s2
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat	s1
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat and primer „Zeroflame Primer“	s1

The additional classification regarding burning droplets/falling burning particles is:

„Zeroflame Fire Retardant Paint“	d0
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat	d0
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat and primer „Zeroflame Primer“	d0

The classification format for the reaction to fire is as follows:

Product	Reaction to fire	Smoke production	Falling burning particles
„Zeroflame Fire Retardant Paint“	B	s2	d0
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat	B	s1	d0
„Zeroflame Fire Retardant Paint“ with „Zeroflame Finish“ top coat and primer „Zeroflame Primer“	B	s1	d0

The classification for the „Zeroflame Fire Retardant Paint“ product in connection with the tested substrates in accordance with table 1 of DIN EN 13501-1:2007 is:

Reaction-to-fire classification: B-s2,d0

The classification for the „Zeroflame Fire Retardant Paint“ product with „Zeroflame Finish“ top coat in connection with the tested substrates in accordance with table 1 of DIN EN 13501-1:2007 is:

Reaction-to-fire classification: B-s1,d0

The classification for the „Zeroflame Fire Retardant Paint“ product with „Zeroflame Finish“ top coat and the primer „Zeroflame Primer“ in connection with the tested substrates in accordance with table 1 of DIN EN 13501-1:2007 is:

Reaction-to-fire classification: B-s1,d0

4.3 Field of application and product parameters

The classification in section 4.2 above only applies to the product that is described in section 2, and is valid for the following fields of application and product parameters:

Field of application: fire protection dispersion for timber and composite wood materials for indoor applications.

The scope of the product parameters of the product are listed below:

Substrate	Component	Density (kg/dm³)	Application rate (g/m²)
Solid-wood board - Density ≥ 420 kg/m³ - Thickness ≥ 10 mm	Zeroflame Fire Retardant Paint Zeroflame Finish	1.20 ± 0.02 1.29 ± 0.02	≥ 350 ≤ 120
Composite wood material - Density ≥ 600 kg/m³ - Thickness ≥ 13 mm	Zeroflame Fire Retardant Paint Zeroflame Finish Zeroflame Primer	1.20 ± 0.02 1.29 ± 0.02 0.80 ± 0.02	≥ 350 ≤ 120 ≤ 120

5 Notes

5.1 In connection with substrates or additional coating other than those specified in section 4.3 above, the reaction to a fire may be adversely affected so that the classification in section 4.2 will no longer apply. The reaction to fire must in these cases be demonstrated separately.

5.2 This Classification Report is not a type approval or product certification document, and it does not replace the approval that may be required under the German building law (State Government Building Regulations).

This document is the translated version of Classification Report K-3368/439/14-MPA BS dated 10/062014. The legally binding text is the aforementioned German Classification Report.

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