

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

- Translation -

**No. of Classification Report:**

K-3067/776/14-2-MPA BS

**Client:**

Sika Deutschland GmbH  
Rieter Tal  
71665 Vaihingen

**Classification item:**

Intumescent fire protection dispersion  
for timber and composite wood:

- Sika Pyroplast Wood P,
- Sika Pyroplast Wood P with Sika Pyroplast Top W,
- Sika Pyroplast Wood P with  
Sika Pyroplast Wood P Primer and Sika Pyroplast Top W

**Basis for classification:**

DIN EN 13501-1:2007

**Number of the notified testing  
laboratory:**

0761-CPD

**Issued on:**

27/06/2013

**Notes:**

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

This Classification Report consists of 8 pages.



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## 1 General

This Classification Report describes the classification that is assigned to the "Sika Pyroplast Wood P" product without or together with the "Sika Pyroplast Top W " top coat and the "Sika Pyroplast Wood P 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	Sika Deutschland GmbH	3067/776/14-2-a	EN 13823
MPA Braunschweig	Sika Deutschland GmbH	3067/776/14-2-b	EN ISO 11925-2

### 3.2 Test results

#### 3.2.1 Test results for the "Sika Pyroplast Wood P " product on a 13-mm chip board

Test method	Parameter	Number of tests	Test results	
			Continuous parameters	Discrete parameters
<b>EN 13823</b>	FIGRA <sub>0.2 MJ</sub> [W/s]	3	8	--
	FIGRA <sub>0.4 MJ</sub> [W/s]		5	--
	THR <sub>600s</sub> [MJ]		0.6	--
	LFS < edge		--	Complied with
	SMOGR <sub>A</sub> [m <sup>2</sup> /s <sup>2</sup> ]		19	--
	TSP <sub>600s</sub> [m <sup>2</sup> ]		63	--
	Burning droplets/ falling burning particles		--	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			-	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			-	No

### 3.2.2 Test results for the "Sika Pyroplast Wood P" product with "Sika Pyroplast Top W" 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 <sub>0.2 MJ</sub> [W/s]	3	92	--
	FIGRA <sub>0.4 MJ</sub> [W/s]		7	--
	THR <sub>600s</sub> [MJ]		0.7	--
	LFS < edge		--	Complied with
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		4	--
	TSP <sub>600s</sub> [m <sup>2</sup> ]		45	--
	Burning droplets/ falling burning particles		--	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		-	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		-	No



**3.2.3 Test results for the "Sika Pyroplast Wood P" product with „Sika Pyroplast Wood P Primer“ and „Sika Pyroplast Top W“ 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 <sub>0.2 MJ</sub> [W/s]	3	94	--
	FIGRA <sub>0.4 MJ</sub> [W/s]		11	--
	THR <sub>600s</sub> [MJ]		1.3	--
	LFS < edge		--	Complied with
	SMOGRA [m²/s²]		0.7	--
	TSP <sub>600s</sub> [m²]		46	--
	Burning droplets/falling burning particles		--	No
EN ISO 11925-2				
Flames applied to surface		6	-	Complied with
30 s fire exposure	FS ≤ 150 mm			
Burning droplets/falling burning particles	Ignition of the filter paper		-	No
Flames applied to edge		6	-	Complied with
30 s fire exposure	FS ≤ 150 mm			
Burning droplets/falling burning particles	Ignition of the filter paper		-	No

**3.2.4 Test results for the "Sika Pyroplast Wood P" product on a 10-mm solid-wood board**

Test method	Parameter	Number of tests	Test results	
			Continuous parameters	Discrete parameters
<b>EN 13823</b>	FIGRA <sub>0,2 MJ</sub> [W/s]	3	15	--
	FIGRA <sub>0,4 MJ</sub> [W/s]		3	--
	THR <sub>600s</sub> [MJ]		0.4	--
	LFS < edge		--	Complied with
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		48	--
	TSP <sub>600s</sub> [m <sup>2</sup> ]		77	--
	Burning droplets/falling burning particles		--	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		-	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		-	No

### 3.2.5 Test results for the "Sika Pyroplast Wood P" product with " Sika Pyroplast Top W " 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 <sub>0.2 MJ</sub> [W/s]	3	97	--
	FIGRA <sub>0.4 MJ</sub> [W/s]		10	--
	THR <sub>600s</sub> [MJ]		0.6	--
	LFS < edge		--	Complied with
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		9	--
	TSP <sub>600s</sub> [m <sup>2</sup> ]		48	--
	Burning droplets/ falling burning particles		--	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		-	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		-	No

## 4 Classification and field of direct application

### 4.1 Classification basis

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

### 4.2 Classification

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

„Sika Pyroplast Wood P“	B
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat	B
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat and „Sika Pyroplast Wood P Primer“	B

The additional classification regarding smoke production is:

„Sika Pyroplast Wood P“	s2
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat	s1
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat and „Sika Pyroplast Wood P Primer“	s1

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

„Sika Pyroplast Wood P“	d0
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat	d0
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat and „Sika Pyroplast Wood P Primer“	d0



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

Product	Reaction to fire	Smoke production	Falling burning particles
„Sika Pyroplast Wood P“	B	s2	d0
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat	B	s1	d0
„Sika Pyroplast Wood P“ with „Sika Pyroplast Top W“ top coat and „Sika Pyroplast Wood P Primer“	B	s1	d0

The classification for the „Sika Pyroplast Wood P“ 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 „Sika Pyroplast Wood P“ product with „Sika Pyroplast Top W“ 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 „Sika Pyroplast Wood P“ product with „Sika Pyroplast Top W“ top coat and the „Sika Pyroplast Wood P 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/dm <sup>3</sup> )	Application rate (g/m <sup>2</sup> )
Solid-wood board - Density $\geq 420 \text{ kg/m}^3$ - Thickness $\geq 10 \text{ mm}$	Sika Pyroplast Wood P	$1.20 \pm 0.02$	$\geq 350$
	Sika Pyroplast Top W	$1.29 \pm 0.02$	$\leq 120$
Composite wood material - Density $\geq 600 \text{ kg/m}^3$ - Thickness $\geq 13 \text{ mm}$	Sika Pyroplast Wood P	$1.20 \pm 0.02$	$\geq 350$
	Sika Pyroplast Top W	$1.29 \pm 0.02$	$\leq 120$
	Sika Pyroplast Wood P Primer	$0.80 \pm 0.02$	$\leq 120$


#### 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-3067/776/14-2-MPA BS dated 09/12/2014. The legally binding text is the aforementioned German Classification Report.

  
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