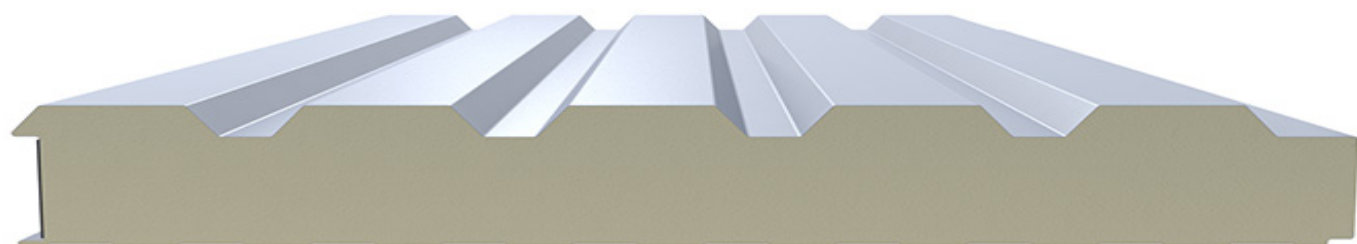
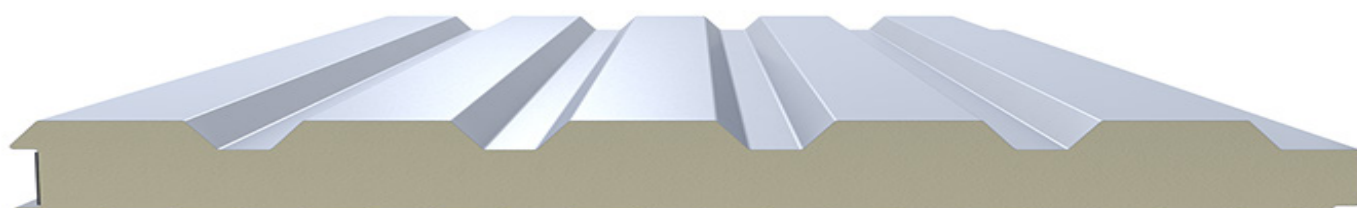


FischerTHERM T

Klassifizierung des Brandverhaltens

in Übereinstimmung mit EN 13501-1:2007+A1:2009



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

Classification no.	2013-Efectis-R0351g[Rev.2]
Sponsor	SAB-profiel bv P.O. Box 97 3400 IJSSELSTEIN The Netherlands
Product name	SAB sandwich panels, A-sides (outer sides / external faces): W40-W150, WB60-WB120, W75TL-W135TL
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	E.O. van der Laan M.Sc. C.C.M. Steinhage B.Sc.
Project number	2013351
Date of issue	December 2014
Number of pages	8

1. INTRODUCTION

1.1. PRODUCT NAME

This classification report defines the classification assigned to **SAB sandwich panels W40-W150, WB60-WB120, W75TL-135TL (A-sides, outer sides / external faces)** in accordance with the procedures given in EN 13501-1:2007+A1:2009.

1.2. REVISION INFORMATION

In this classification the thickness range of W-TL sandwich panels is extended to 135 mm. This extension is based on paragraph C.1.3 (direct field of application) table C.1 and Figure C.3 in the 2013 version of the product standard EN 14509:2013 which states the joint types I to VIII valid for all types of joint. Also some textual alterations were made.
Original date of issue Report and Revision.1: March, 2014

2. DETAILS OF CLASSIFIED PRODUCT

2.1. GENERAL

The product, **SAB sandwich panels W40-W150, WB60-WB120, W75TL-W135TL (A-sides, outer sides / external faces)** are defined as wall panels.

2.2. PRODUCT DESCRIPTION

- **SAB W 40.1150 to SAB W 150.1150**
 - B-side (inner side): steel 0.4 mm, profiled, with a 15 µm polyester coating
 - PIR: thickness 40 - 150 mm, density 40 kg/m³
 - A-side (outer side): steel 0.5 mm, profiled, with 25 µm polyester coating

This product has a total thickness of 40-150 mm, a width of 1150 mm and a mass per unit area: 9.1 kg/m² (W40) - 13.5 kg/m² (W150)

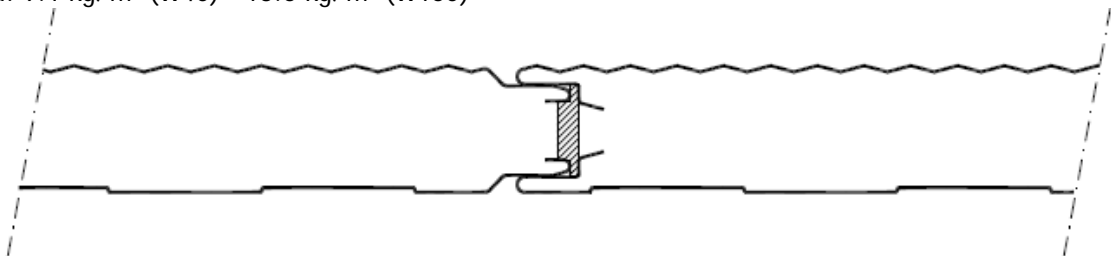


Figure 1. W40.1150 (ML) A-side (outer side) at the top, B-side (inner side) below

- **SAB WB 60.1000 to SAB WB 120.1000**
 - B-side (inner side): steel 0.4 mm, profiled, with 15 µm polyester coating
 - PIR: thickness 60 - 120 mm, density 40 kg/m³
 - A-side (outer side): steel 0.5 mm, profiled, with 25 µm polyester coating

This product has a total thickness of 60-120 mm, a width of 1000 mm and a mass per unit area: 10.6 kg/m² (WB60) - 13.0 kg/m² (WB120)

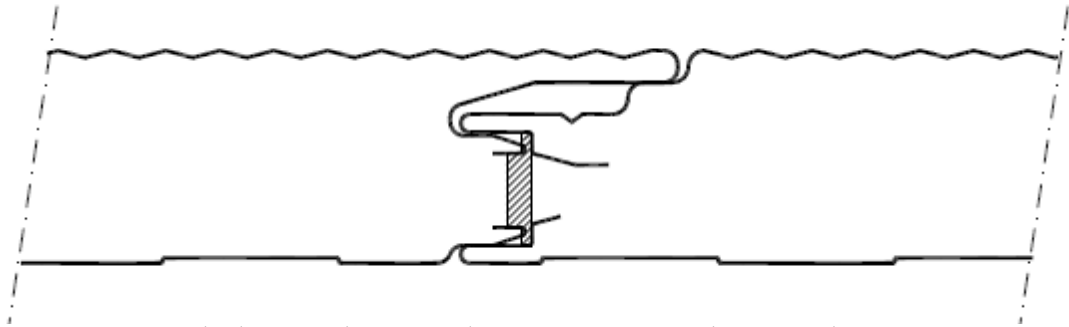


Figure 2. WB60.1000 (ML) A-side (outer side) at the top, B-side (inner side) below

- SAB W 75.1020 TL to SAB W 135.1020 TL
- B-side (inner side): steel 0.4 mm, profiled, with 15 µm polyester coating
- PIR: thickness 75 - 95 mm, density 40 kg/m³
- A-side (outer side): steel 0.5 mm, profiled, with 25 µm polyester coating

The product has a total thickness of 75-135 mm, a width of 1020 mm and a mass per unit area: 10.9 kg/m² (W75TL) - 12.7 kg/m² (W135TL)

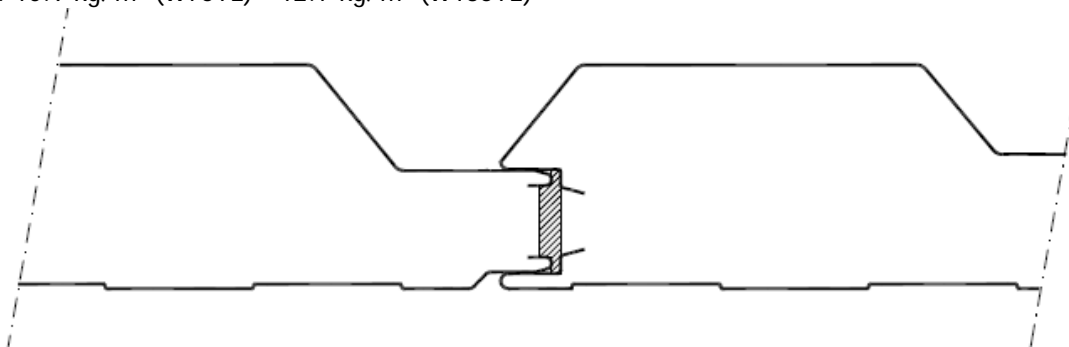


Figure 3. W75.1020 TL, A-side (outer side) at the top, B-side (inner side) below

2.3. MANUFACTURER/IMPORTER

SAB-profiel bv
 P.O. Box 97
 3400 IJSSELSTEIN
 The Netherlands

3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

3.1. APPLICABLE (PRODUCT) STANDARDS

EN 13165:2009	Thermal insulation products for buildings - Factory made rigid polyurethane foam (PUR) products - Specification
EN 14509:2013	Self-supporting double skin metal faced insulating panels - Factory made products - Specifications

3.2. REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV The Netherlands	SAB-profiel bv The Netherlands	2013-Efectis-R0351a 2013-Efectis-R0351b 2013-Efectis-R0351c 2013-Efectis-R0351d 2013-Efectis-R0351e	EN ISO 11925-2:2010 EN 13823:2010 EN 13823:2010 EN 13823:2010 EN 13823:2010

3.3. TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters

EN-ISO 11925-2				
surface flame impingement	$F_s \leq 150$ mm	6	25	-
	Ignition of filter paper		-	Compliant
Edge flame impingement	$F_s \leq 150$ mm	6	15	-
	Ignition of filter paper		-	Compliant
Side flame impingement on PIR, middle	$F_s \leq 150$ mm	6	73	-
	Ignition of filter paper		-	Compliant
Side flame impingement on steel/PIR	$F_s \leq 150$ mm	2	45	-
	Ignition of filter paper		-	Compliant

Assessment: according to product standard EN 14509:2013 only surface flame impingement and side flame applied to middle of the thickness are mandatory.
For reasons of completeness, sometimes asked for by officials, also edge flames and side ignition on edge of steel/PIR contact were applied.

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN 13823				
W75TL A-side	FIGRA0.2MJ [W/s]	1	81	-
	FIGRA0.4MJ [W/s]		81	-
	THR600s [MJ]		3.7	-
	LFS < edge		-	Compliant
	SMOGRA [m2/s2]		41.8	-
	TSP600s [m2]		225*	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant
EN 13823				
W95TL A-side	FIGRA0.2MJ [W/s]	3	98	-
	FIGRA0.4MJ [W/s]		96	-
	THR600s [MJ]		4.6	-
	LFS < edge		-	Compliant
	SMOGRA [m2/s2]		30.1	-
	TSP600s [m2]		199	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant

*) See observation and second assessment 4.4 in 2013-Efectis-R0351d

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN 13823				
W40 A-side	FIGRA0.2MJ [W/s]	1	92	-
	FIGRA0.4MJ [W/s]		87	-
	THR600s [MJ]		3.3	-
	LFS < edge		-	Compliant
	SMOGRA [m2/s2]		20.7	-
	TSP600s [m2]		175	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant
EN 13823				
W150 A-side	FIGRA0.2MJ [W/s]	3**	72	-
	FIGRA0.4MJ [W/s]		72	-
	THR600s [MJ]		5.1	-
	LFS < edge		-	Compliant
	SMOGRA [m2/s2]		22.7	-
	TSP600s [m2]		194	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant

***) See second assessment 4.4 in 2013-Efectis-R0351d

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN 13823				
WB60 A-side	FIGRA0.2MJ [W/s]	1	53	-
	FIGRA0.4MJ [W/s]		53	-
	THR600s [MJ]		4.0	-
	LFS < edge		-	Compliant
	SMOGRA [m2/s2]		16.4	-
	TSP600s [m2]		152	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant
EN 13823				
WB120 A-side	FIGRA0.2MJ [W/s]	1	82	-
	FIGRA0.4MJ [W/s]		75	-
	THR600s [MJ]		5.9	-
	LFS < edge		-	Compliant
	SMOGRA [m2/s2]		15.3	-
	TSP600s [m2]		132	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant

3.4. CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria			
Class	B	C	D
Test method(s)			
EN 13823	$FIGRA \leq 120 \text{ W/s}$ $LFS < \text{edge of specimen}$ $THR_{600s} \leq 7,5 \text{ MJ}$	$FIGRA \leq 250 \text{ W/s}$ $LFS < \text{edge of specimen}$ $THR_{600s} \leq 15 \text{ MJ}$	$FIGRA \leq 750 \text{ W/s}$
EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150 \text{ mm}$ within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
Additional classification			
Smoke production	s1 = $SMOGRA \leq 30 \text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 50 \text{ m}^2$; s2 = $SMOGRA \leq 180 \text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 200 \text{ m}^2$; s3 = not s1 or s2		
Flaming Droplets/particles	d0 = no flaming droplets/ particles in EN 13823 within 600 s ; d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s ; d2 = not d0 or d1.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2007+A1:2009.

4.2. CLASSIFICATION

The product, **SAB sandwich panels W40-W150, WB60-WB120, W75TL-W135TL**, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s2

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

d0

Reaction to fire classification: B- s2, d0

4.3. FIELD OF APPLICATION

This classification is valid for the following product parameters:

Thickness	W40-W150:	40 - 150 mm
	WB60-WB120:	60 -120 mm
	W75TL-W135TL:	75 - 135 mm
Surface density	W40:	9.1 kg/m ²
	W150:	13.5 kg/m ²
	WB60:	10.6 kg/m ²
	WB120:	13.0 kg/m ²
	W75TL:	10.9 kg/m ²
	W135TL:	12.7 kg/m ²
Other properties	PIR density: 34-46 kg/m ³ (40 ±15%)	

This classification is valid for the following end use applications:

Substrate	Not applicable
Air gap	Not applicable
Methods and means of fixing	Mechanically
Joints	Vertical joints only
Other aspects of end use conditions	Only A-side (outer side / external face) classification

4.4. DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.

5. LIMITATIONS

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

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 attestation of conformity and CE marking under the Construction Products Directive.

The manufacturer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

E.O. van der Laan M.Sc.
Project leader reaction to fire

C.C.M. Steinhage B.Sc.
Project leader reaction to fire

www.fischerprofil.de

Fischer Profil ist ein eingetragenes Warenzeichen von Tata Steel Europe oder Ihren Tochtergesellschaften. Es wurde größtmögliche Sorgfalt angewandt, um zu gewährleisten, dass der Inhalt dieser Veröffentlichung korrekt ist. Tata Steel und Ihre Tochtergesellschaften übernehmen jedoch keinerlei Verantwortung oder Haftung für Fehler oder Informationen, die als irreführend erachtet werden.

Es obliegt dem Kunden, die von der Tata Steel oder ihren Tochtergesellschaften gelieferten oder hergestellten Produkte vor deren Einsatz auf ihre Eigenschaften hin zu prüfen.

Copyright©2021
Fischer Profil GmbH

Fischer Profil GmbH

Waldstraße 67
57250 Netphen-Deuz
Deutschland
T: +49 (0) 2737 508-0
E: info@fischerprofil.de

Fischer Profil GmbH, in Deutschland registriert, Amtsgericht Siegen HRB 3038. Sitz der Gesellschaft: Waldstraße 67, 57250 Netphen-Deuz.

Deutsch 05.2021