Laboratory for Fire Safety

Classification of the fire resistance in accordance with EN 13501-2:2023 of a sandwich panel wall, SAB WB120.1000 FR (outside ↔ inside)

Classification report

Reportnumber YA 3557-1E-RA-001 dated 06 February 2026

YA 3557-1E-RA-001 /EA371008/ RODGER

Laboratory for Fire Safety

Classification of the fire resistance in accordance with EN 13501-2:2023 of a sandwich panel wall, SAB WB120.1000 FR (outside ↔ inside)

Classification report

Client: SAB-Profiel B.V.
P.O. Box 97
3400 AB IJsselstein
The Netherlands

Issued by: Peutz bv
Lindenlaan 41
NL-6584 AC Molenhoek

Notified Body: NB 2264

Product: Sandwich panel wall, SAB WB120.1000 FR

Report Number: YA 3557-1E-RA-001
Date: 06 February 2026
Reference: RO/RO/ /YA 3557-1E-RA-001

Representative: R.R.H. Okkersen, BSc.
Author: R.R.H. Okkersen, BSc.
0031 85 8228618
r.okkersen@peutz.nl

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Revision history

In the table below, the already issued versions of this document are shown. A brief description of the modifications is made.

Revision number	Date [dd-mm-yyyy]	Document status	Modified sections [chapter/paragraph]	Description of the modifications
N.a.	20-01-2026	Draft	N.a.	N.a.
001	06-02-2026	Final	-	-

1 Introduction

This classification report defines the fire resistance classification which is assigned to a sandwich panel wall, heated according to the standard fire curve, all this in accordance with the procedures described in EN 13501-2:2023, further referenced as EN 13501-2.

TESTEN
RvA L 334

For performing measurements, the Laboratory for Fire Safety of Peutz bv is recognized by the Dutch Accreditation Body RvA..

The RvA is member of the **EA MLA** (**E**uropean **A**ccreditation Organisation **M**ulti**L**ateral **A**greement). www.european-accreditation.org

EA: "Certificates and reports issued by bodies accreditatie by MLA and MRA members are considered to have the same degree of credibility, and are accepted in MLA and MRA countries".

2 Details of the classified system

2.1 General

The system, a sandwich panel wall, is defined as a non-loadbearing external wall as meant in EN 13501-2 chapter 7.5.3.
The wall has an asymmetrical construction.

2.2 Product description

The system, a sandwich panel wall, is fully described in the test report. See also the Appendix for drawings.

t 2.1 Most important characteristics

Parameter	Description
Maximal height	3.0 m
Maximal width	3.0 m
Maximal thickness	120 mm
Joints	Vertical
Supporting construction	Rigid, thickness 0,20 m, density 600 kg/m^3

The test frame consists of a steel frame with heat-resistant concrete elements inside. The installation opening of the test frame is 4.05 m × 3.00 m. A supporting construction is built in the test frame.
An opening is created of 3.0 x 3.0 m (w x h). In this opening three SAB WB120.1000 FR sandwich panels are mounted (with a PIR core material), vertically mounted. The sandwich panels have a dimension of:

- length 3000 mm;
- width 1000 mm;
- thickness 120 mm.

The sandwich panel wall consists of 3 sandwich panels, (3 x 1000 mm) only the noggin was cut off from the panels at both edges. The sandwich panels consist of coil coated galvanized steel plates (thickness outer plate 0.50 mm, thickness inner plate 0.40 mm) with a PIR core (thickness 120 mm, 40 kg/m^3). An intumescent sealant (type confidential, but known by Peutz) is factory applied in the joint of the sandwich panels. A fire resistant silicone sealant (type confidential, but known by Peutz) is applied in both steel joints of the sandwich panels.
The panels are fixed with steel angles (50 x 100 x 1.5 mm) to the supporting construction with plugs (Fisher S 8 x 40 mm) and screws (Fabory Chipboardscrew CSK 6 x 60 mm) c.t.c. 300 mm and to the sandwich panels with self drilling screws (Roymans type ZB 6.3 x 22 mm) c.t.c. 250 mm. Sealant (PFC Corofil Firestop) is used between the steel angels

and the sandwich panels. A steel U-profile (50 x 120 x 0.7 mm) is fixed with self drilling screws (Roymans 6.3 x 22 mm) c.t.c. 250 mm on the edge of the sandwich panel at the free edge. The joints of the sandwich panels are stitched with self drilling screws (Roymans type FS 4.8 x 110 mm) c.t.c. 330 mm.
The opening between the sandwich panels and the supporting construction is filled with Rockwool (Rocksono Base). On one side is a free edge, this is filled with Rockwool (Rocksono Base, thickness 40 mm).

The materials used are mentioned in the tables below.

t 2.2 Construction materials

Material description	**Dimensions / specifications**
Outer coil coated galvanized steel plate, white	Thickness 0.50 mm
Core material, PIR	Thickness 120 mm, density 40 kg/m^3
Intumescent sealant	Type confidential, but known by Peutz
Fire resistant silicone sealant	Type confidential, but known by Peutz
Inner coil coated galvanized steel plate, white	Thickness 0.40 mm

t 2.3 Fixing materials

Material description	**Dimensions / specifications**
Plug	Fisher S 8 x 40 mm
Screw	Fabory chipboardscrew CSK 6 x 60 mm
Self drilling steel plate screw	Roymans type ZB 6.3 x 22 mm
Self drilling fire safe screw	Roymans type FS 4.8 x 110 mm
Steel angles	50 x 100 x 1.5 mm
Steel U-profile	50 x 120 x 50 mm, thickness 0.7 mm
Sealant	PFC Corofil Firestop

t 2.4 Finishing materials

Material description	**Dimensions / specifications**
Rockwool Rocksono Base	Thickness 40 mm, density 35 kg/m^3

3 Test data in support of the classification

The classification is based on the reports mentioned in Table t 3.1.
This is the most recent version of the reports, the reports have not been withdrawn and may be used for this classification.

t 3.1 Reports used for the classification

Laboratory	Sponsor	Report reference and date of issue	Used Methods
Peutz bv, NB 2264	SAB Profiel B.V.	Y 2992-3E-RA-001 dated April 26, 2024	EN 1363-1:2020 EN 1363-2:1999 EN 1364-1:2015
Peutz bv, NB 2264	SAB Profiel B.V.	Y 3557-3E-RA-001 dated January 20, 2026	EN 1363-1:2020 EN 1363-2:1999 EN 1364-1:2015

3.1 Results

3.1.1 Report Y 2992-3E-RA-001

The test specimen was heated using the standard heating curve as defined in EN 1363-1. The sandwich panel wall was heated from the outside face. The test specimen was tested without the fire resistant silicone sealant in the joints.

Table t 3.2 shows the elapsed time whole minutes that have elapsed since the commencement of the test. After 39 minutes the test ended in consultation with the client.

t 3.2 Fire resistance test results

Performance criteria with assessment criterion	Elapsed time [minutes]
Integrity (E)	
- No sustained flaming	38
- Cotton pad does not glow or ignite	-
- No gap gauges into the furnace	-
Insulation (I)	
- Increase of average temperature less than 140 °C	38
- Increase of maximum temperature less than 180 °C	33
Radiation (W)	Heat flux meter 1
- 5 kW/m^2 not exceeded	Not reached
- 10 kW/m^2 not exceeded	Not reached
- 15 kW/m^2 not exceeded	Not reached
- Maximum reached 1.8 kW/m^2	39
Deflection of the wall less than 100 mm	39

Remark: fail of integrity (E) automatically means fail of insulation (I), see paragraph 5.2.3.2 of EN 13501-2:2023. Fail due to sustained flaming or gap gauges automatically means fail of radiation (W), see paragraph 5.2.4 of EN 13501-2:2023.

3.1.2 **Report Y 3557-3E-RA-001**

The test specimen was heated using the standard heating curve as defined in EN 1363-1. The sandwich panel wall was heated from the inside face.

Table t 3.2 shows the elapsed time whole minutes that have elapsed since the commencement of the test. After 31 minutes the test ended in consultation with the client.

t 3.3 Fire resistance test results

Performance criteria with assessment criterion	**Elapsed time [minutes]**
Integrity (E)	
- No sustained flaming	31
- Cotton pad does not glow or ignite	-
- No gap gauges into the furnace	-
Insulation (I)	
- Increase of average temperature less than 140 °C	31
- Increase of maximum temperature less than 180 °C	31
Radiation (W)	Heat flux meter 2
- 5 kW/m^2 not exceeded	Not reached
- 10 kW/m^2 not exceeded	Not reached
- 15 kW/m^2 not exceeded	Not reached
- Maximum reached 0.5 kW/m^2	31
Deflection of the wall less than 100 mm	31

Remark: fail of integrity (E) automatically means fail of insulation (I), see paragraph 5.2.3.2 of EN 13501-2:2023. Fail due to sustained flaming or gap gauges automatically means fail of radiation (W), see paragraph 5.2.4 of EN 13501-2:2023.

4 Classification

4.1 Reference of the classification

This classification is performed in accordance with paragraph 7.5.3 of EN 13501-2.

4.2 Classification

The system, an external wall, is classified according to the following combinations of performance criteria and classes.

Classification of the fire resistance

EI 30 (o↔i)

EW 30 (o↔i)

E 30 (o↔i)

The classification is valid for the field of application as described in chapter 5.

5 Field of application

5.1 General

The classification is valid for structures that are identical in detail to the structure described in the test reports. In addition, within the direct field of application as defined in the test standard, see Table t 3.1, one or more of the modifications of the tested structure indicated below are permitted, provided that at least the same stiffness and stability is achieved for the structure as for the tested structure.

The direct field of application is taken from chapter 13 of EN 1364-1. The field of application as defined in the present classification report comprises the direct field of application.

In the following, the terms 'non-heated side' (o) and 'heated side' (i) denote the heating direction of the element.

5.2 Field of application and conditions

The field of application below is valid up to and including the classifications:
EI 30 (o↔i), EW 30 (o↔i) and E 30 (o↔i).

In the sections below, the relevant section from the test standard (EN 1364-1) is always cited.

EN 1364-1, 13.1
In all cases, the following adjustments to the primary tested construction are possible:
- decrease in height of the wall;
- increase in thickness of the wall, minimum wall thickness 120 mm;
- increase in the thickness of component materials;
- decrease in linear dimensions of boards or panels but not thickness;
- decrease in distance of fixing centres, maximum distance 250 mm c.t.c.;
- increase in the number of vertical joints, of the type tested;

5.3 Extension of width

EN 1364-1, 13.2
Since the construction has been tested with a width of 3.0 m (minimum 3 m) and one free edge, an identical construction with a larger width may be used.

Since the measured heat radiation is less than 6 kW/m², an increase in width of an identical construction is also allowed for EW classification.

5.4 Extension of height

EN 1364-1, 13.3

Since the construction is tested with a height of 3.0 m and the deflection perpendicular to the wall was less than 100 mm the construction may be increased to a height of 4.0 m, provided that the expansion allowances are increased pro-rata.

Since the measured heat radiation is less than 6 kW/m², an increase in width of an identical construction is also allowed for EW classification.

5.5 Supporting constructions

EN 1364-1, 13.4

The result is applicable to any other supporting construction of the same type (rigid) that has the same or a greater classified fire resistance (thicker, denser, as appropriate) than the one used in the test and the same vertical orientation, i.e.:

- only vertical since the element is tested with the standard supporting construction fixed along the vertical edge.

6 Additional Statement

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

In the event of conflicting provisions in the harmonised standards and technical specifications, the provisions of Regulation (EU) 305/2011, better known as the Construction Products Regulation (CPR), prevail.

R.R.H. Okkersen, BSc.
Senior project manager

H.H.A. Leenders, BSc.
Head Laboratory for Fire Safety

This report contains 13 pages and 1 appendix of 5 pages

PEUTZ

REVISIES			
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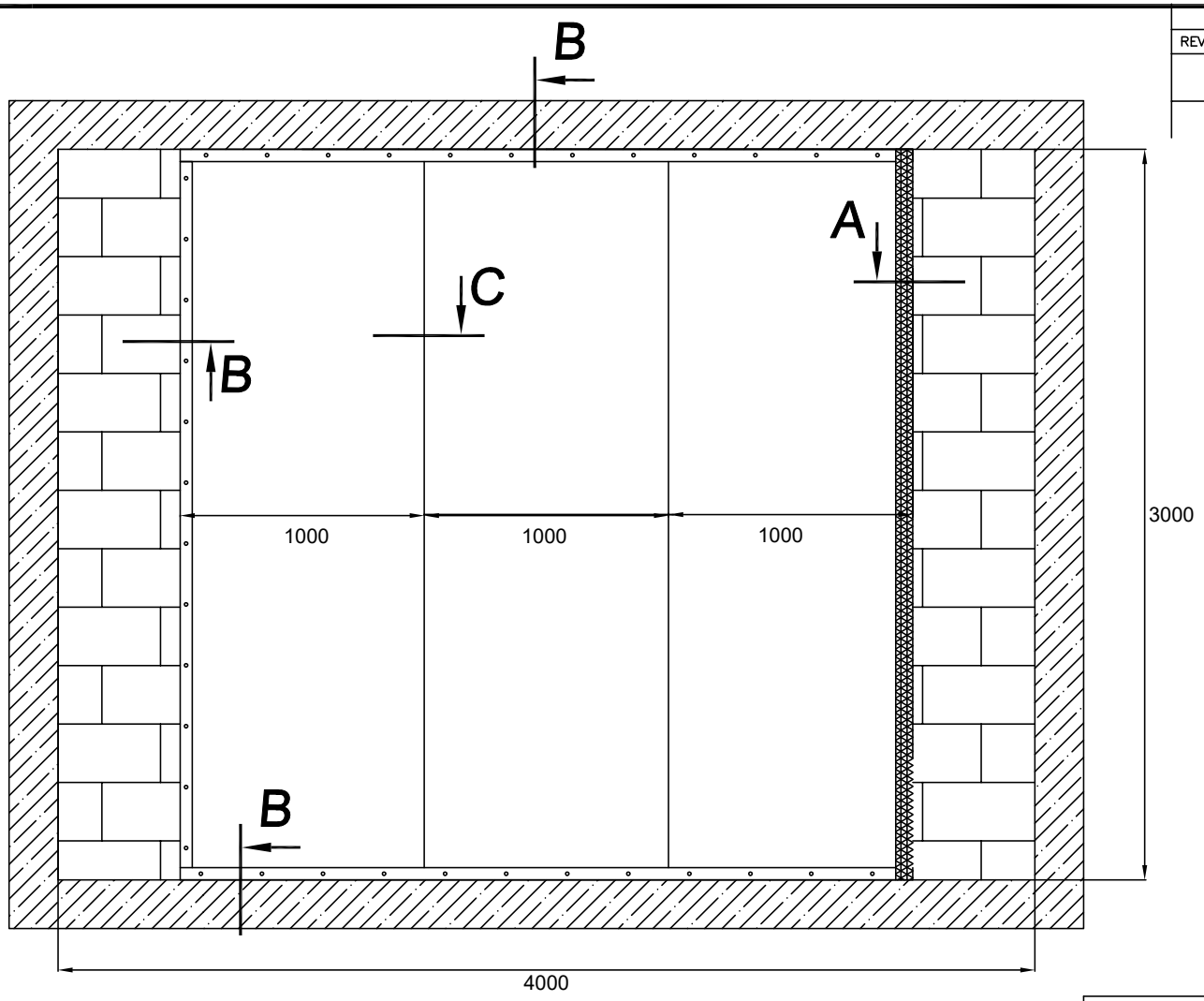

SAB PROFIEL
A Tata Steel Enterprise

TITEL: Overview WB120 vertical

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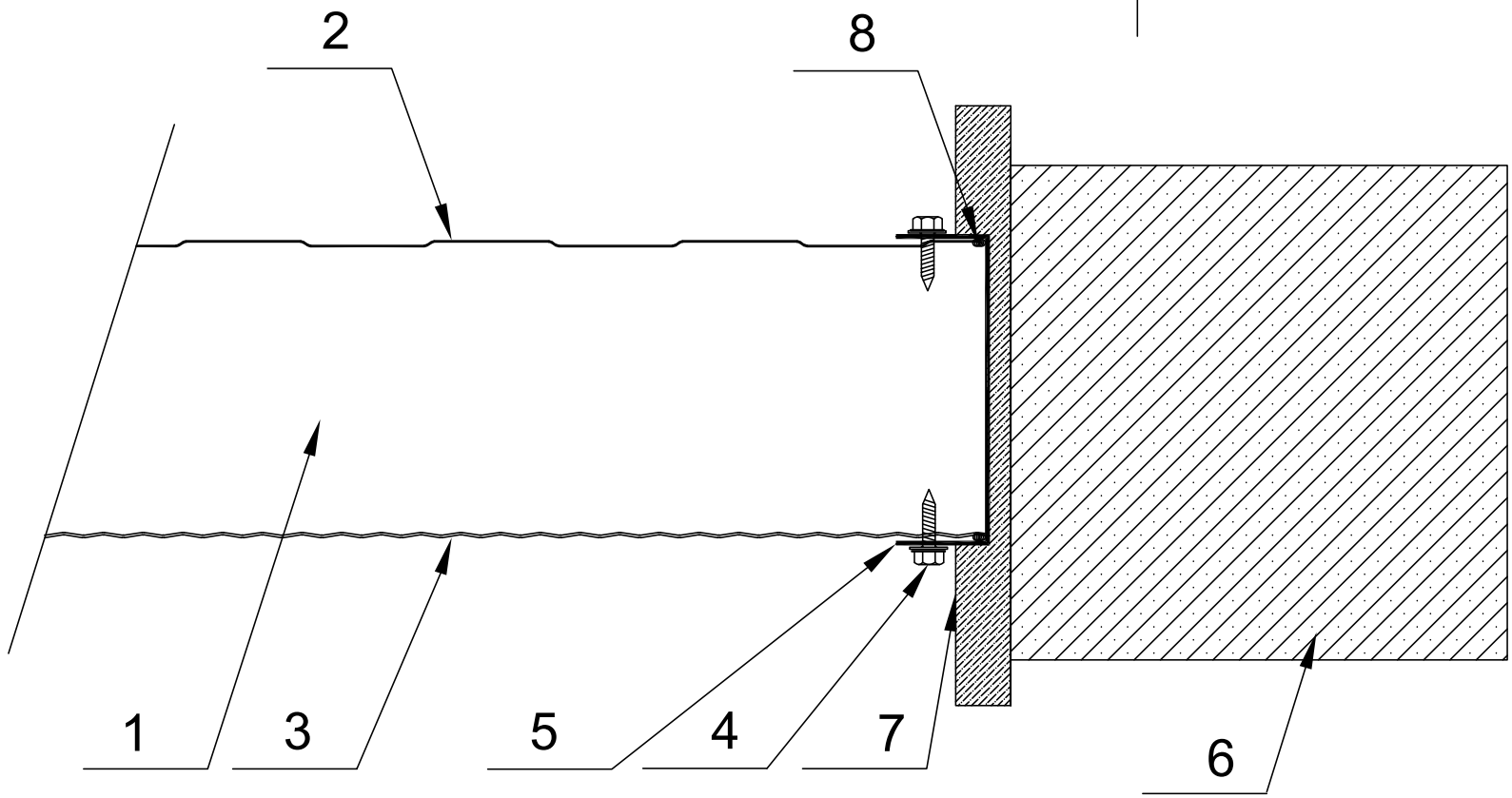

SAB PROFIEL
A Tata Steel Enterprise

TITEL: Detail A WB120 vertical

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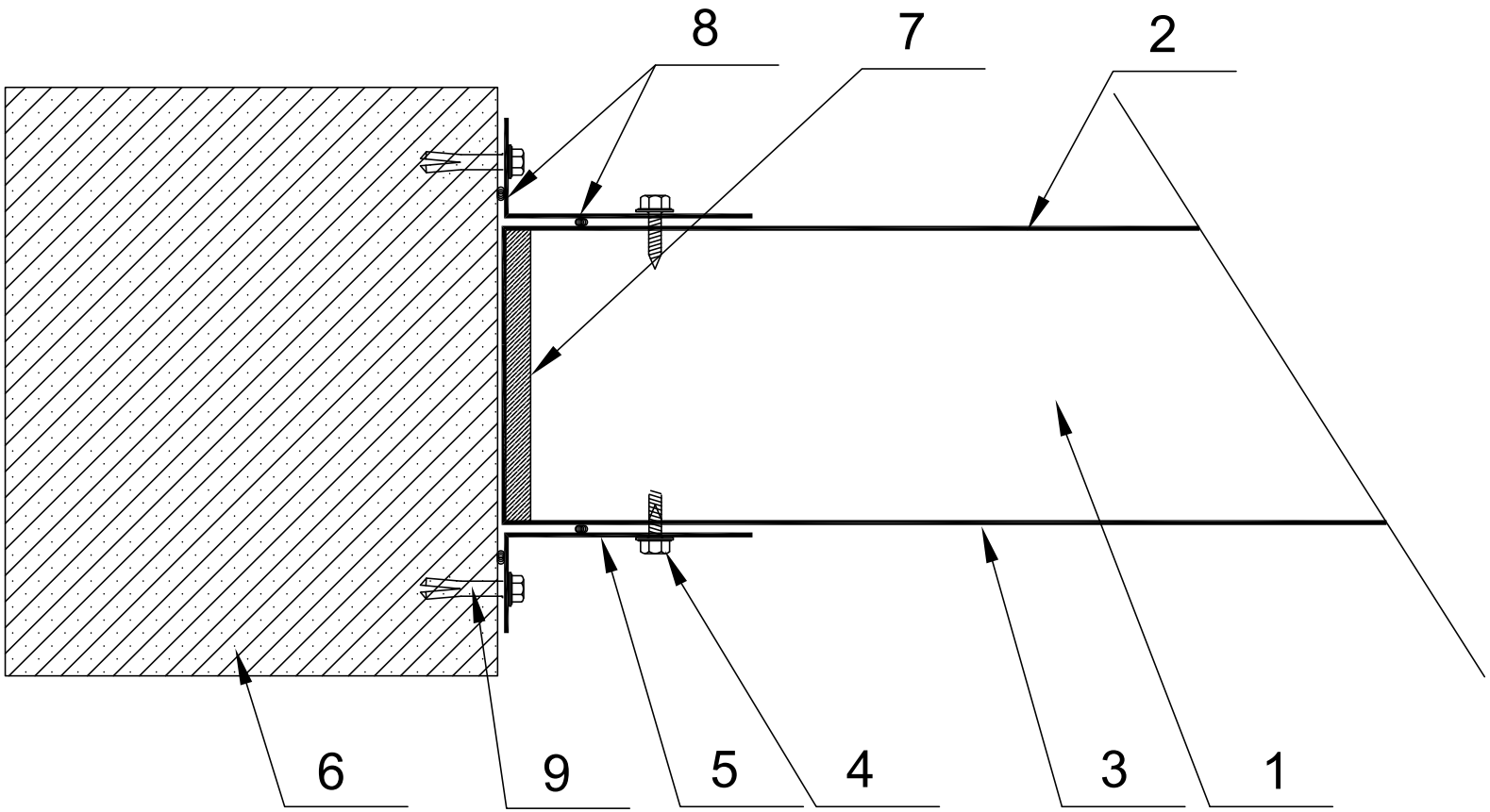

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YA 3557-1E-RA-001 IEA371008 ROOGER

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REVISIES			
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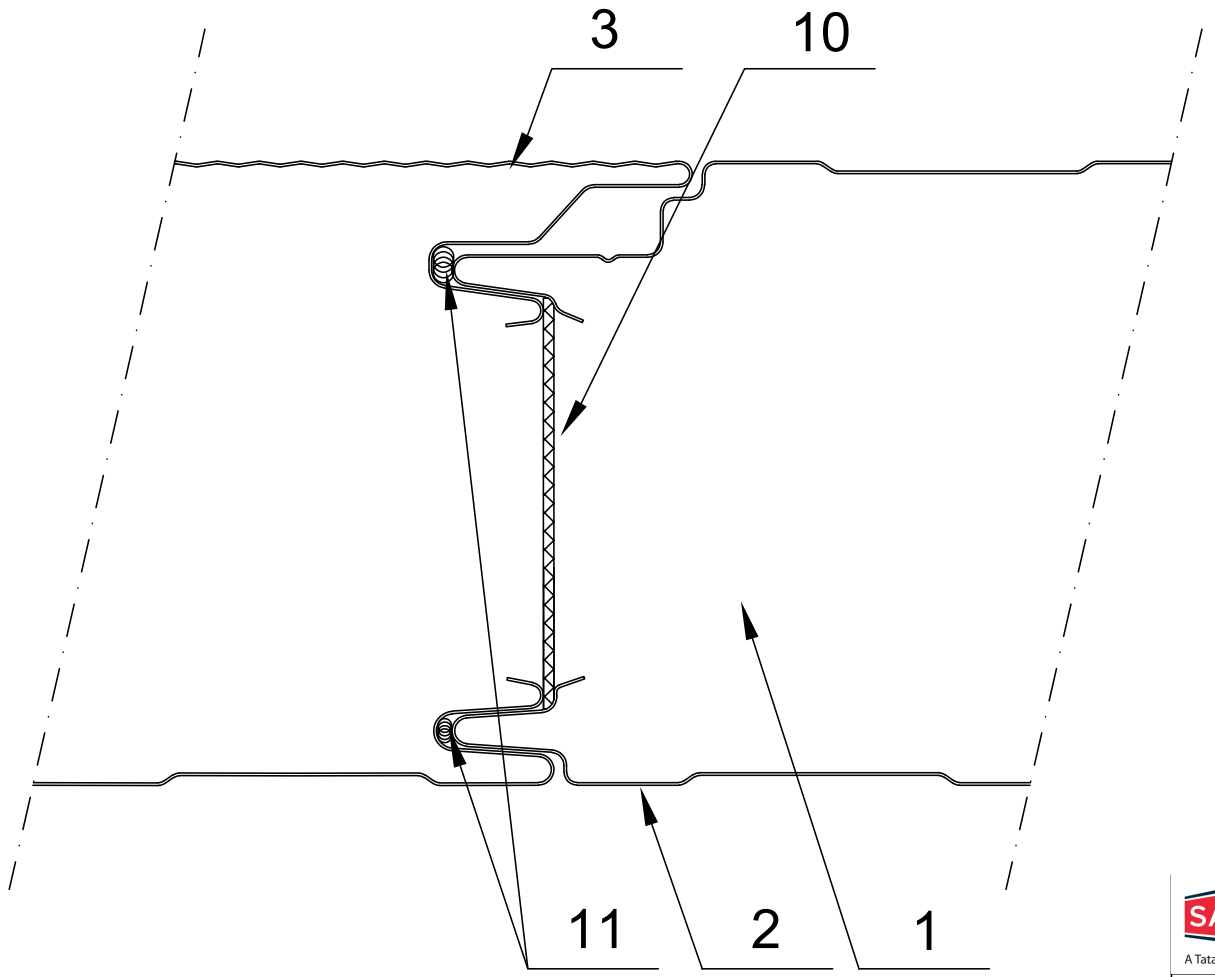

SAB PROFIEL
A Tata Steel Enterprise

TITEL
Detail C WB120 vertical

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FORMAAT / SCHAAL	CONTROLEUR		BLAD
A4 / 1:1.25	G.H.R. Timmerman		1 van 1

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Bill of materials:

1) PIR filling
2) Inner plate 0.40 mm
3) Outer plate 0.50 mm
4) Screw: Roymans 6.3 x 22 mm
5) L-profile 50 x 100 x 1.50 mm / U-profile 50 mm x panel thickness x 0.70 mm
6) Concrete / Aerated concrete
7) Stonewool insulation
8) Firestop acoustic intumescent sealant
9) Concrete anchor Fischer M8 x 40 mm en screw Spax 6 x 60 mm
10) Intumescent sealant, type confidential but known by the test institute
11) Fire safe silicone kit, type confidential but known by the test institute