

**CLASSIFICATION OF FIRE RESISTANCE ACCORDING TO  
EN 13501-2: 2016 OF A NON-LOADBEARING PARTITION  
CONSISTING OF “SAB D90.1000 TL” SANDWICH PANELS  
AND MANUFACTURED BY SAB-PROFIEL BV**

Classification no.	2021-Efectis-R000783
Sponsor	SAB-profiel BV P.O. Box 97 3400 AB IJSSELSTEIN THE NETHERLANDS
Product name	SAB D90.1000 TL
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	A.J. Waber, M.Sc. G.M. Klijn, B.Sc.
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## 1. INTRODUCTION

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This classification report defines the resistance to fire classification assigned to a partition of type “SAB D90.1000 TL” in accordance with the procedures given in EN 13501-2:2016.

### 1.1 NORMATIVE REFERENCES

*Table 1.1: Normative references*

<b>European standard</b>	<b>Part</b>
EN 1363-1: 2020	Fire resistance tests – Part 1: General requirements
EN 1363-2:1999	Fire resistance tests – Part 2: Alternative and additional procedures
EN 1364-1:2015	Fire resistance tests for non-loadbearing elements - Part 1: Walls
EN 13501-2:2016	Fire classification of construction products and building elements – Part 2: Classification using data from fire resistance tests, excluding ventilation services

### 1.2 REVISION INFORMATION

This is the first issue of the classification report.

## 2. DETAILS OF CLASSIFIED PRODUCT

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### 2.1 GENERAL

The element, a partition of type “SAB D90.1000 TL” is defined as a non-load bearing partition.

### 2.2 DESCRIPTION

The element, a partition of type “SAB D90.1000 TL” is fully described in report with reference 2020-Efectis-R002166 in support of classification listed in 3.1.

## 3. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THE CLASSIFICATION

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### 3.1 TEST REPORTS

*Table 3.1: Details test report*

<b>Name of laboratory</b>	<b>Name of sponsor</b>	<b>Report ref. no</b>	<b>Test standard and date</b>
<i>Efectis Nederland</i>	<i>SAB-profiel BV</i>	<i>2020-Efectis-R002166</i>	<i>EN 1364 1:2015</i>

### 3.2 RESULTS

Table 3.2: Summary of test results

Criterion	Time [min]	Time of reaching a criterion measured from the start of the test in accordance with EN 1364-1:2015
<b>Integrity (E)</b>		
-Cotton pad	91	Not applied
-Gap gauge Ø 6 mm	91	Not applied
-Gap gauge Ø 25 mm	91	Not applied
-Sustained flaming > 10 seconds	91	No Failure
<b>Insulation (I)</b>		
-Average temperature	29	Failure
-Maximum temperature	17	Failure tc 15
<b>Heat Radiation (W)</b>	Failure, max. 20.18 kW/m <sup>2</sup> at 90 min. 6 kW/m <sup>2</sup> was reached at 51 minutes 15 kW/m <sup>2</sup> was reached at 77 minutes	
The maximum deflection was 115.0 mm at 90 minutes 100 mm deflection was reached at 80 minutes		
The heating was terminated after 91 minutes after consulting the client.		

## 4. CLASSIFICATION AND FIELD OF APPLICATION

### 4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with Clause 7 of EN 13501-2:2016.

### 4.2 CLASSIFICATION

The element, a partition of type "SAB D90.1000 TL" is classified according to combinations of performance parameters and classes as described in Clause 6.7 of EN 13501-2:2016.

**E 90, EI 15 and EW 60**

### 4.3 FIELD OF APPLICATION

This classification is valid for the following end use applications:

#### 4.3.1 General

The results of the fire test are directly applicable to similar constructions where one or more of the changes listed below are made and the construction continues to comply with the appropriate design code for its stiffness and stability, except with respect to the construction types covered in annex A and annex B of EN 1364-1 where specific direct field of application rules are given.

- a) decrease in height;
- b) increase in the thickness of the wall;
- c) increase in the thickness of component materials;
- d) decrease in linear dimensions of boards or panels but not thickness;
- e) decrease in stud spacing;
- f) decrease in distance of fixing centres;
- g) increase in the number of vertical joints, of the type tested.

#### 4.3.2 Extension of width

For test specimens tested without a supporting construction, the width of an identical construction may be increased if the specimen was tested at a minimum of nominally 3 m wide with one vertical edge without restraint. I.e., the width of an identical construction may be increased without restraint.

For test specimens tested with a supporting construction, the width of an identical construction may be increased if the specimen was tested at a minimum of nominally 2.8 m wide with one vertical edge without restraint.

In case of EW classification, an increase in width of an identical construction is only allowed when the average unexposed surface temperature of any discrete area of the test specimen remains below 300 °C or the measured radiation remains below 6 kW/m<sup>2</sup>. In any other case, no increase in width is allowed.

The radiation exceeded 6 kW/m<sup>2</sup> after 51 minutes. Therefore, the width of the construction may be increased without restraint for **EW 30**.

#### 4.3.3 Extension of height

The height of the construction may be increased by 1.0 m under the following conditions:

- a) minimum tested height is 3 m when tested without a supporting construction or 2.8 m when tested with a supporting construction;
- b) the maximum deflection of the test specimen was not in excess of 100 mm;
- c) the expansion allowances are increased pro-rata.

In case of EW classification, an increase in height of an identical construction is only allowed when the average unexposed surface temperature of any discrete area of the test specimen remains below 300 °C or the measured radiation remains below 6 kW/m<sup>2</sup>. In any other case, no increase in height is allowed.

The deflection exceeded 100 mm after 80 minutes and the radiation exceeded 6 kW/m<sup>2</sup> after 51 minutes. Therefore, the height of the construction may be increased to 4 meters for **E 60 and EW 30**.

#### 4.3.4 Supporting constructions

The following rules for the field of application apply.

#### 4.3.4.1 Standard supporting constructions

For specimens tested with any standard supporting construction as defined in EN 1363-1, the result is applicable to any other supporting construction of the same type (flexible or rigid) that has the same or a greater classified fire resistance (thicker, denser, more layers of boards, as appropriate) than the one used in the test and the same horizontal and/or vertical orientation, i.e.: only vertical if the specimen was tested with the standard supporting construction fixed along the vertical edge.

## 5. LIMITATIONS

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

### SIGNED



A.J. Waber, M.Sc.  
Project leader fire resistance

### APPROVED



G.M. Klijn, B.Sc.  
Project leader fire resistance

6. DRAWINGS

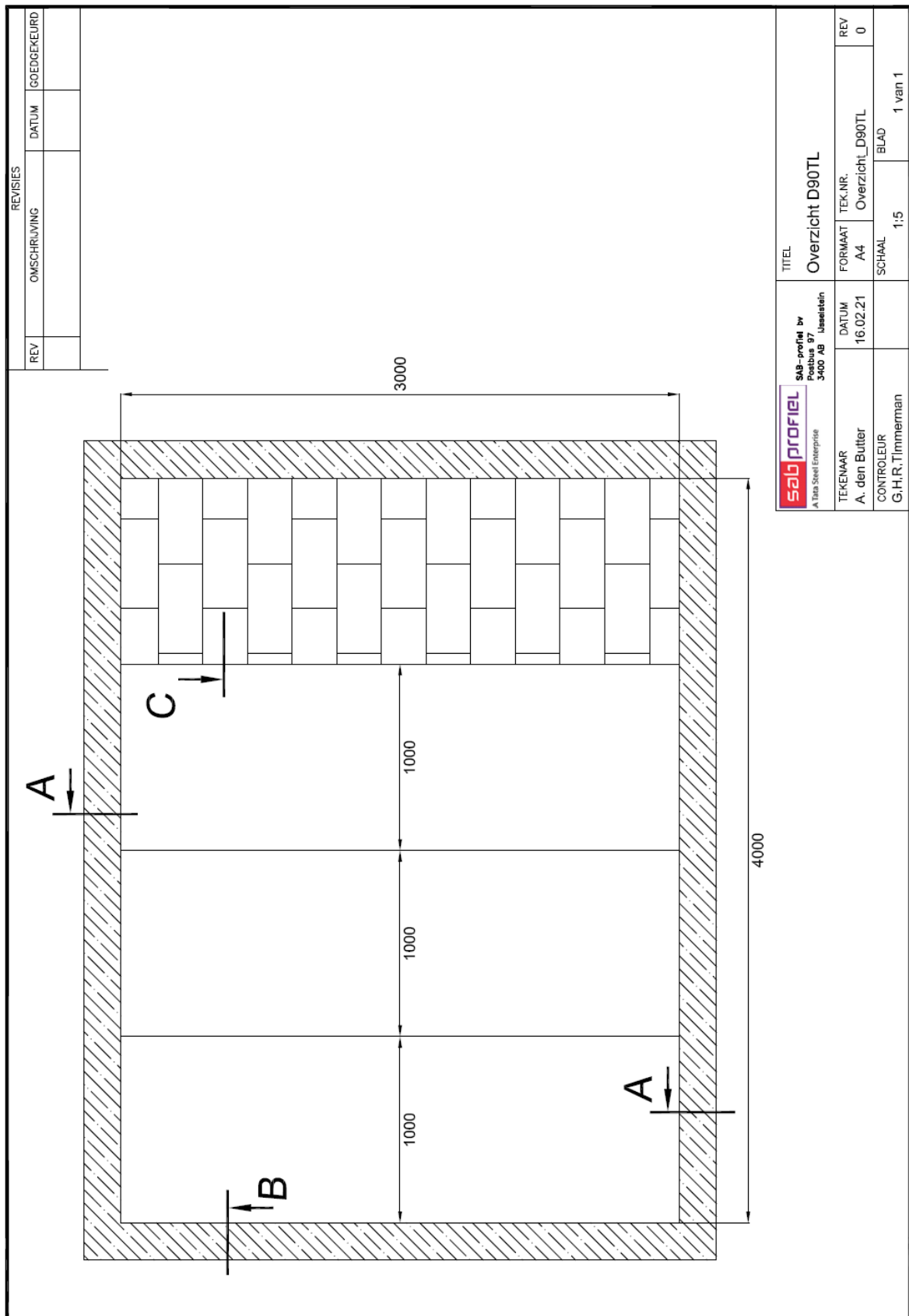


Figure 1: Overview of the test specimen, seen from the unexposed side

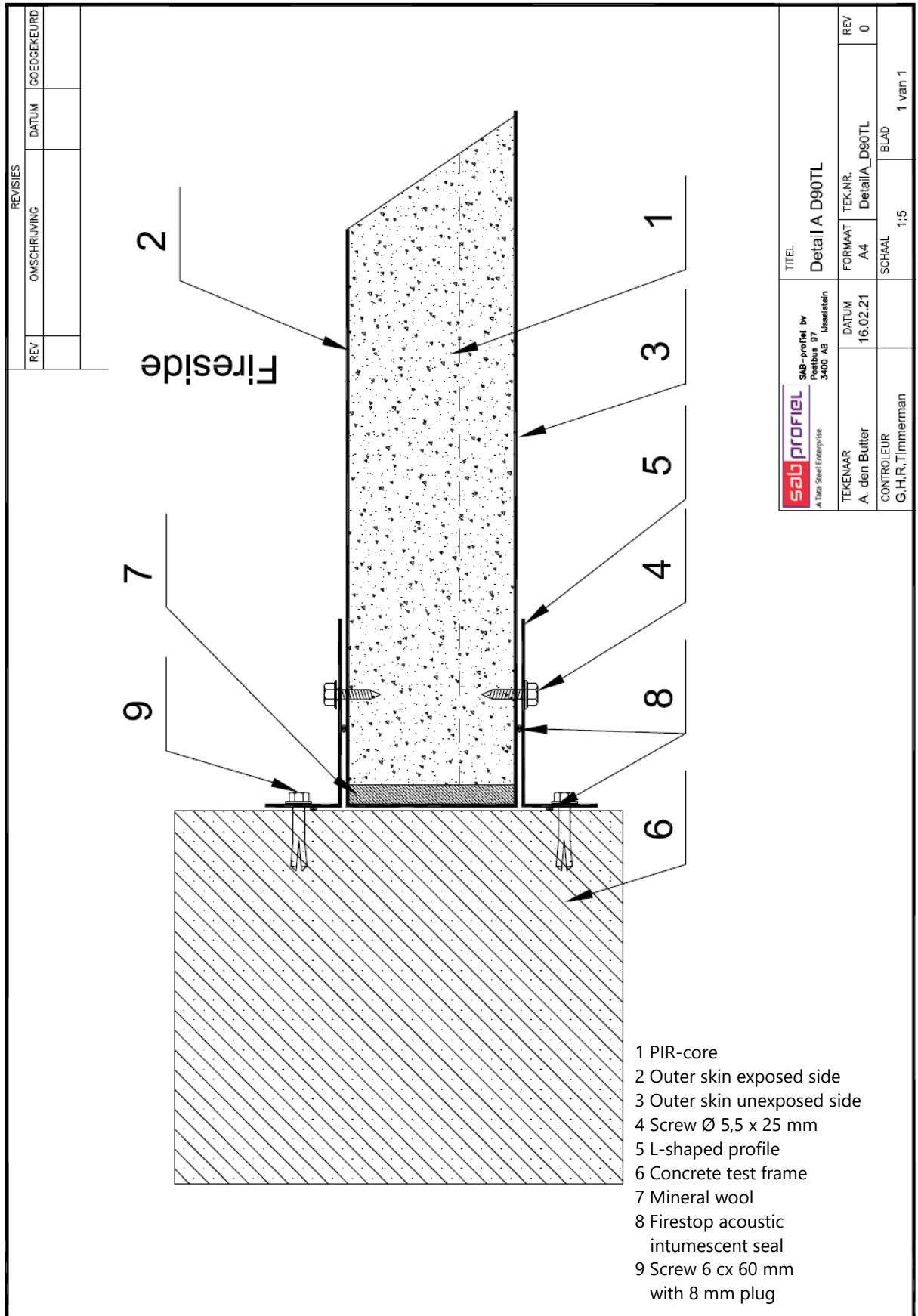


Figure 2: Detail A



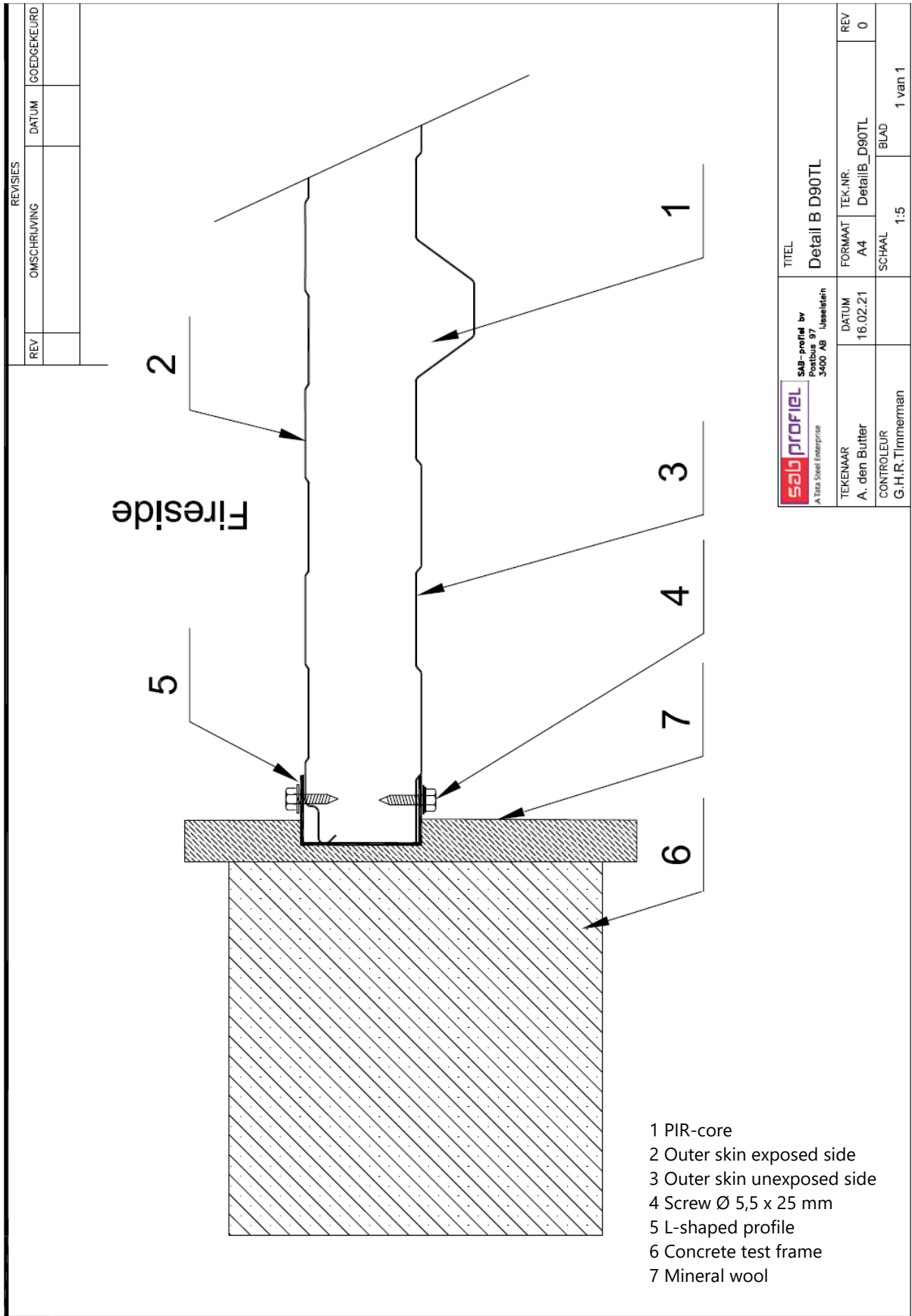


Figure 3: Detail B

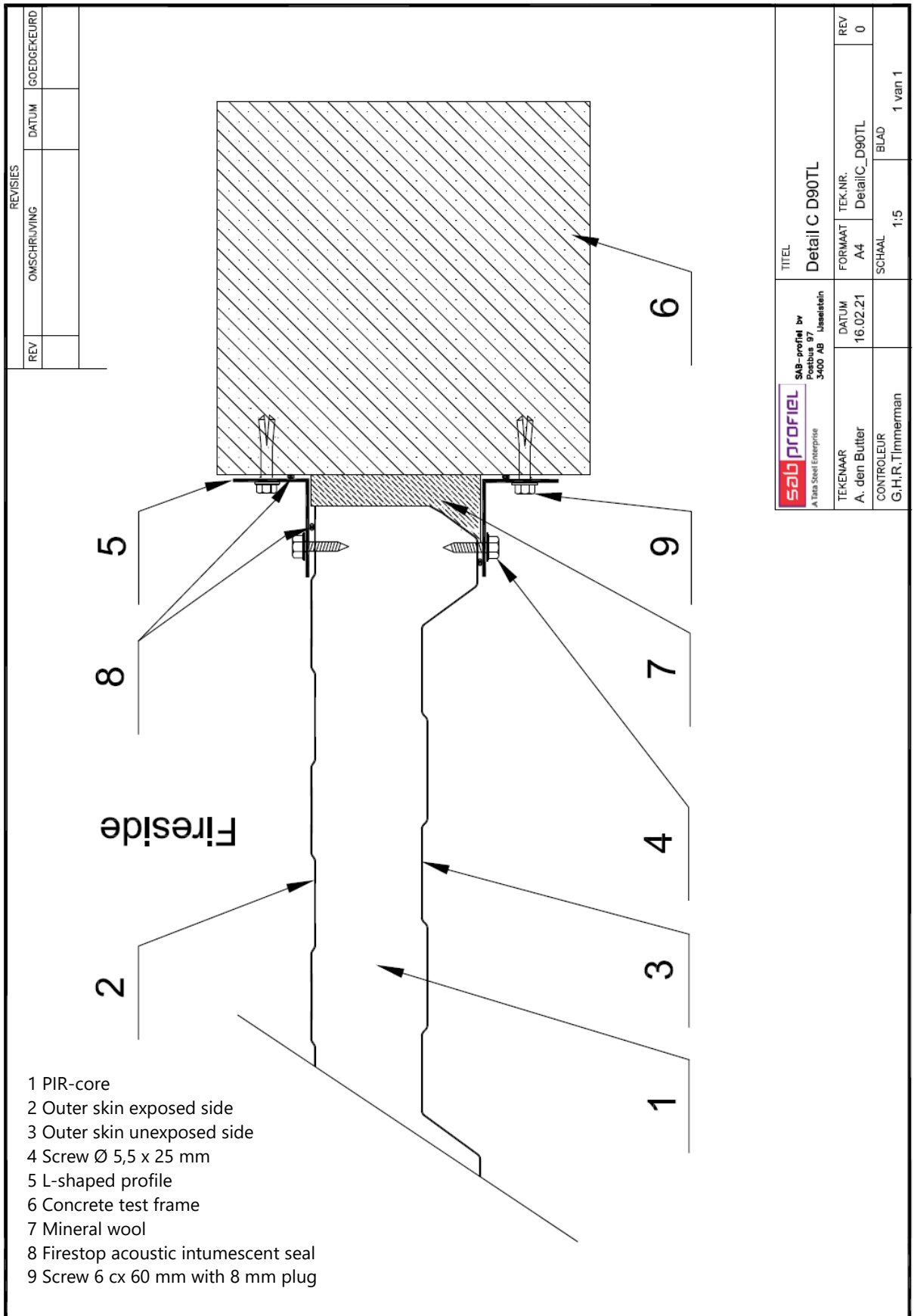
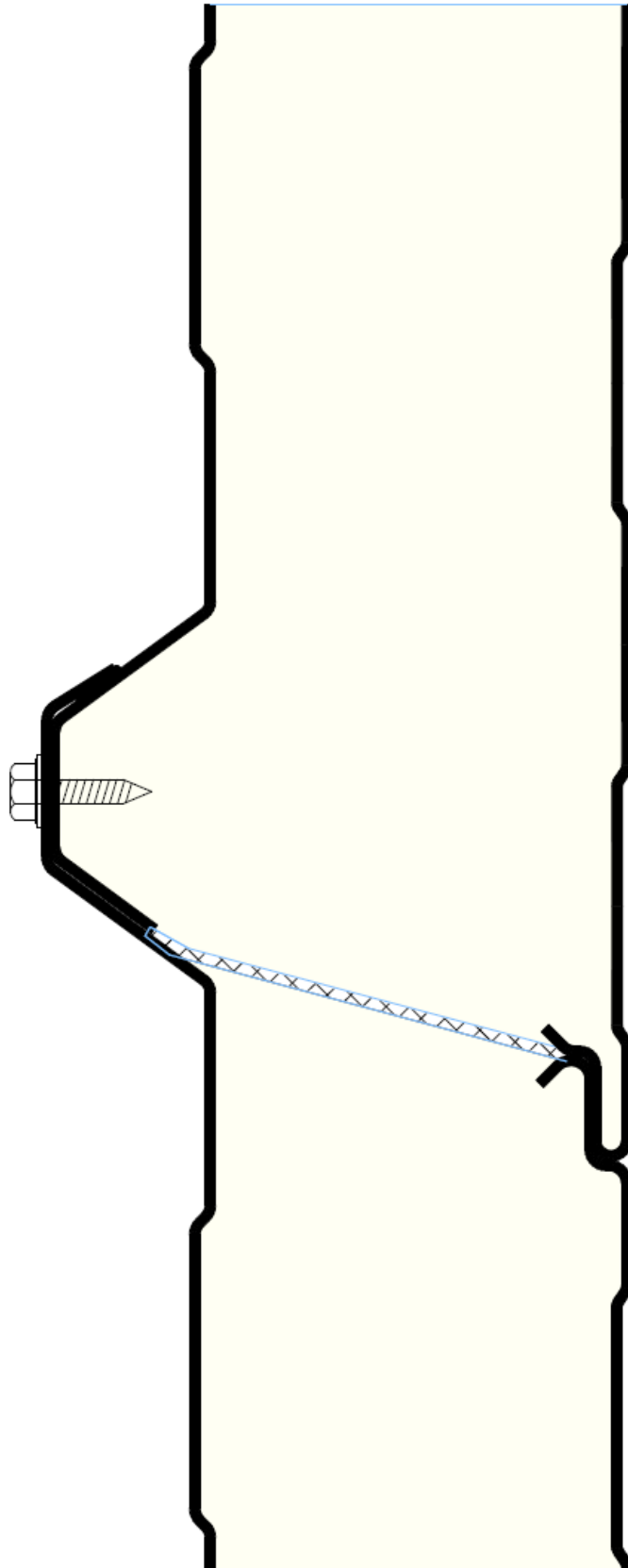


Figure 4: Detail C



Exposed side

Figure 5: Joint detail