



# KOMO<sup>®</sup> attest-with-productcertificate

Semimanufacture

## SKH

Visiting address: 'Het Cambium', Nieuwe Kanaal 9c, 6709 PA Wageningen, The Netherlands Postal address: PO Box 159, 6700 AD Wageningen Phone: +31 (0)317 45 34 25 Email: mail@skh.org (0317) 41 26 10 Website: http://www.skh.org Fax.

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

Number: Issued: **Replaces:** 

20196/15 01-12-2015 20196/14

## Manufacturer

Faav Vianen B.V. Mijlweg 3 4131 PJ VIANEN PO Box 116 4130 EC VIANEN Tel. (0347) 37 66 24 Fax (0347) 37 79 40 Email: info@faay.nl Website: http://www.faay.nl

## Declaration by SKH

This attest with product certificate was issued based on AD 1003 'Non-load-bearing interior walls' dated 24-01-2013, issued by SKH in accordance with the SKH Regulations for Certification.

## SKH declares that:

- there is legitimate confidence that the Faay wall panels made by the manufacturer continuously comply with the technical specifications laid down in this attest with product certificate, provided that the Faay wall panels are marked with the KOMO® logo in the manner indicated in this attest with product certificate.
- the Faay wall panels, which have been made with the certified products, perform as described in this attest with product certificate, provided that:
  - o the manufacture of the Faay wall panels was done in compliance with the processing methods laid down in this attest with product certificate;
  - o the application requirements described in this attest with product certificate are met.

SKH declares that, while taking into consideration the above, the Faay wall panels in their applications meet the requirements of the Buildings Decree, as specified on page 2 of this quality declaration.

SKH declares that, for this attest with product certificate, no inspection is done of the production of the other components of the building unit or of the manufacturing of the building elements.

This certificate is a recognised quality declaration for the Buildings Decree, in accordance with the Tripartite agreement (Government Gazette 132, 2006) and the Housing Act. The certificate is included in the 'Overzicht van erkende kwaliteitsverklaringen in de bouw' (Overview of recognised quality declarations in the construction industry) on the website of SBK: www.bouwkwaliteit.nl.

DOR On behalf of SKH VZ

H.J.O. van Doorn, Director

Furthermore, this set tificate is included in the overview on the website of the KOMO Foundation: www.komo.nl.

Users of this attest with product certificate are advised to check whether this certificate is still valid; please consult the SKH website for this: http://www.skh.org.

This attest with product certificate consists of 21 pages.



## **Building Decree**

The following has been assessed: **Product Quality** System **Product performance** in application **Periodic check** 

 Page
 2 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

BUIL	DING DECREE ENTRY			
No.	Section	Limiting value/method of determination Performance in accordance with quality declaration		Comments in connection with application
2.1	General strength of the building structure	Ultimate limit conditions for building structure, calculation according to NEN- EN 1993-1-1 (incl. national appendix), NEN-EN 1995-1-1 (incl. national appendix), NEN-EN 1999-1-1(incl. national appendix) and NEN-EN 1990 (incl. national appendix) and NEN-EN 1991-1 (incl. national appendix)	Comply with regulations	Interior walls suitable as floor partition
2.8	Restriction of the arising	Heating space	Fire class A or A1fl	
	of fire nazards	Shaft, conduit or duct	Fire class A2	
2.9	Reducing fire and smoke development	Interior surface	Fire class at least B and smoke class s2.	
		Structural part	No mention of performance	
2.10	Limitation of propagation of fire	Flashover/fire breakthrough resistance ≥ 30 or ≥ 60 minutes according to NEN 6068	Depending on type of wall	See Paragraph 3.1.6
2.11	Further limitation of fire propagation and distribution of smoke	Flashover/fire breakthrough resistance $\geq$ 20 or $\geq$ 30 minutes according to NEN 6068	Depending on type of wall	See Paragraph 3.1.6
3.1	Protection against noise from outside	Characteristic sound insulation ≥ 20 dB according to NEN 5077	Not investigated	
3.2	Protection against noise from installations	Characteristic noise level ≤ 30 dB according to NEN 5077	Not investigated	
3.3	Restriction of reverberation	Noise absorption ≥1/8 of numerical value of volume of space	Not investigated	
3.4	Sound insulation between spaces; other plot	Characteristic air-noise level difference ≥ 47 dB and weighted contact noise level ≤ 59 dB	Depending on type of wall	See Paragraph 3.2.1
	Sound insulation between spaces; different user functions on the same plot	Characteristic air-noise level difference ≥ 47 dB and weighted contact noise level ≤ 59 dB	Depending on type of wall	See Paragraph 3.2.2
	Sound insulation between spaces; accommodation spaces of the same residential function	Characteristic air-noise level difference ≥ 32 dB and weighted contact noise level ≤ 79 dB	Depending on type of wall	See Paragraph 3.2.3 and Table 5
3.5	Exclusion of moisture	Watertight according to NEN 2778	Not investigated	
		Specific air volume flow < 20.10-6 m <sup>3</sup> /(m <sup>2</sup> .s)	Not investigated	
		Factor of the temperature inside surface ≥ 0.50 according to NEN 2778	Factor of the temperature, interior surface ≥ 0.65 according to NEN 2778	
		Water absorption average < 0.01 kg/(m <sup>2</sup> .s <sup><math>1/2</math></sup> ) and nowhere > 0.2 kg/(m <sup>2</sup> .s <sup><math>1/2</math></sup> )	Not investigated	
3.10	Protection against rats and mice	Openings ≤ 0.01 m	Openings ≤ 0.01 m	
5.1	Energy efficiency	Thermal resistance ≥ 3.5 m <sup>2</sup> .K/W according to NEN 1068	Depending on type of wall	See Table 6
		Air volume flow of the whole $\leq 0.2 \text{ m}^3/\text{s}$ according to NEN 2686	Air volume flow of the total ≤ 0.2 m <sup>3</sup> /s according to NEN 2686	

 Page
 3 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

### 1 TECHNICAL SPECIFICATION

### 1.1 Subject

Non-bearing interior wall, made of floor height panels intended for use in user functions, such as

- non-bearing facing wall
- non-bearing partition wall
- non-bearing insulation wall

- non-bearing wall separating user functions, such as residence-separating and residence boundary walls The non-bearing interior wall can be fitted with one or two sheets of plasterboard for better sound insulation, or may be constructed double using a connection profile.

### 1.2 Form and composition

### 1.2.1 General description of the building element

Non-bearing facing wall of types PG60, PG70, PG90, GP22, HW19 and VP35; non-bearing partition wall of types SP54 (with film), HW54, SP54, VP54, SP70, VP70, IW90, HW90, IW100 and IW135 and non-bearing residence-separating and residence boundary wall of types IW148 and IW200, made of rectangular floor height panels, which are inserted into each other by a tongue and groove joint.

### 1.2.2 Building section data

a) Type PG60, PG70 and PG90

Rectangular 600 mm wide and floor height panels made of respectively 50, 60 mm and 80 mm thick PIR rigid foam board, on one side of which 9.5 mm thick sheets of plasterboard are glued. Total thickness of the wall, respectively 60, 70 and 90 mm.

b) Type GP22

Rectangular 600 mm wide and floor height panels made of 2.5 mm thick chipboard, to both sides of which 9.5 mm thick sheets of plasterboard are glued. Total thickness of the wall 22 mm.

c) Type HW19

Rectangular 600 mm wide and floor height panels made of 15 mm chipboard (flax), the lengthwise sides of which are furnished with a groove and on both sides of which 2 mm thick HPL boards are glued. Total thickness of the wall 19 mm.

d) Types VP35, VP54 and VP70

Rectangular 400 and 600 mm wide and floor height panels made of chipboard (flax), the lengthwise sides of which are furnished with a groove and on both sides of which 9.5 mm thick sheets of plasterboard are glued. Total thickness of the wall 35 mm, 54 mm and 70 mm. VP 35 only 600 mm wide.

Panels of the type VP54 and VP70 are fitted with cable shafts for installing electricity, telecommunications and CAI cables.

e) Type SP54 (with film) and SP54

Rectangular 600 mm wide and floor height panels made of 44 mm chipboard (flax), the lengthwise sides of which are furnished with a groove and on both sides of which 5 mm thick HPL boards are glued. With wall type SP54 (with film), these chipboard sheets are finished with a PVC film. Total thickness of the wall 54 mm.

Panels of the type SP54 and SP54 (with film) are fitted with cable shafts for installing electricity, telecommunications and CAI cables.

f) Type SP70

Rectangular 600 mm wide and floor height panels made of 50 mm chipboard (flax), the lengthwise sides of which are furnished with a groove and on both sides of which 10 mm (fire-resistant) chipboard sheets are glued.

Total thickness of the wall 70 mm.

Panels of the type SP70 are fitted with cable shafts for installing electricity, telecommunications and CAI cables.

Page 4 of 21 Number: 20196/15 Issued: 01-12-2015

## **NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS**

g) Type HW54

Rectangular 600 mm wide and floor height panels made of 50 mm chipboard (flax), the lengthwise sides of which are furnished with a groove and on both sides of which 2 mm thick HPL boards are glued. Total thickness of the wall 54 mm.

Panels of the type HW54 are fitted with cable shafts for installing electricity, telecommunications and CAI cables.

h) Type IW90

The wall is made on site of two GP22 elements with a cavity of 46 mm, in which 40 mm thick rock wool sheets are installed fixed in place. The wall elements are joined to each other with metal I profiles or TT profiles.

Total thickness of the wall 90 mm.

Type HW90 i)

The wall is made on site of two HW19 elements with a cavity of 46 mm, in which 40 mm thick rock wool sheets are installed fixed in place. The wall elements are joined to each other with metal I profiles or TT profiles.

Total thickness of the wall 90 mm.

Type IW100 and IW135. i)

The wall is made on site of two VP35 elements with a cavity of 30 mm (IW100), 65 mm (IW135), in which 25 mm (IW100), 65 mm (IW135) thick rock wool sheets are installed fixed in place. The wall elements are joined to each other with metal I profiles (IW100 with the option of TT profiles as well). Total thickness of the wall 100 mm (IW100), 135 (IW135).

k) Type IW148

The wall is made on site of two VP54 elements with a cavity of 40 mm filled with rock wool. Total wall thickness of the wall 148 mm.

Type IW200. D)

The wall is made on site of two VP54 or VP70 elements with a cavity of 92 mm (2xVP54) or 60 mm (2xVP70) filled with rock wool. In the cavity, 40 mm of rock wool is installed on one of the sides. Total thickness of the wall 200 mm.

#### 1.2.3 **Dimensions of components**

- standard length: 2,400 and 3,000 mm HW19, HW54 and HW90

2,600, 3,000 and 3,600 mm PG60, PG70, PG90, SP54 and SP54 (with film) 3000 mm SP70 (other lengths on request) 2,400, 2,600, 2,800, 3,000, 3,200 and 3,600 mm VP35, VP54, VP70, IW90, IW100, IW135,

IW148

- variable length: on request up to a maximum of 3,600 mm. and IW200
- width: 400 and 600 mm (PG60, PG70, PG90, VP35, GP22 and HW only 600 mm)
- total wall thickness: 19 mm (HW19), 22 mm (GP22), 35 mm (VP35), 54, 64, 73, (VP54), 54 mm (SP54 (with

film)), HW54 and SP54) 60 mm (PG60), 70 mm (PG70), 70 mm (SP70 and VP70), 90 mm (PG90, IW90 and HW90), 100 mm (IW100), 135 mm (IW135), 148 mm (IW148) and

200 mm (IW200).

#### 1.2.4 Permissible tolerances for dimensions and shape:

- length ± 3 mm
- width ± 2 mm
- thickness ± 1 mm
- rectangularity ±1mm
- smoothness ± 1 mm
- straightness of sides ± 1 mm ± 1 mm
- sides parallel
- 0.5 mm/m<sup>1</sup> hygric expansion max.

 Page
 5 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 1.2.5 Mass and maximum wall height

Table 1 Mass and maximum wall height

Wall type	Mass [kg/m <sup>2</sup> ]	Max. height [m]
	( <u>+</u> 1.5 kg/m2)	
GP22	15.40	-
PG60	9.1	-
PG70	9.4	-
PG90	10.00	-
HW19	13.70	-
VP35	23.18	-
SP54 (with film)	23.85	2.50
HW54	24.72	2.50
SP54	23.82	2.50
VP54	28.12	2.50
VP54 + 1x plasterboard 9.5 mm	36.12	2.50
VP54 + 2x plasterboard 9.5 mm	44.12	2.50
VP70	34.20	3.50
SP70	32.00	3.50
IW90	36.80	2.60
HW90	33.40	2.60
IW100	47.36	2.60
IW100 + 1x plasterboard 9.5 mm	55.36	2.60
IW135	51.36	2.60
IW148	58.24	2.60
IW200 (2x VP54)	58.24	2.60
IW200 (2x VP70)	70.40	3.50

## 1.2.6 Materials

### 1.2.6.1 Flax board, chipboard

Flax board, chipboard according to AD 1101 Complies with formaldehyde emissions Class E1.

- type GP22<sup>\*)</sup> thickness  $2.5 \pm 0.5$  mm, density 750 kg/m<sup>3</sup>.
- type HW19 and VP35 thickness 15 ± 1 mm, density 450 kg/m3.
- type VP54 thickness 34 ± 1 mm, density 400 kg/m3.
- type SP54 (with film) and SP54 thickness 44 ± 1 mm, density 400 kg/m3.
- type SP54 (with film) and SP54 thickness 5 ± 1 mm, density 750 kg/m3.
- type VP70 and SP70 thickness  $50 \pm 1$  mm, density 380 kg/m3.
- Width:  $600 \pm 2$  mm and  $1,250 \pm 2$  mm.

<sup>\*)</sup>Width type GP22 500 mm  $\pm$  2 mm.

## 1.2.6.2 Plasterboard

Plasterboard according to AD 1009, type A or H. Lengthwise side finish FK (facet side). Thickness: 9.5 mm or 12.5 mm. Width: 602 +0 -4 mm and 1,250 +0 -4 mm.

Lengthwise side finish AK (chamfered side) Thickness: 9.5 mm or 12.5 mm. Width: 596 +0 -4 mm.

## 1.2.6.3 Tongues

- for joints between the elements:

- Chipboard (timber): dimensions 16 mm x 29 mm, density  $625 \pm 25 \text{ kg/m3}$ .
- for wall joints:
- European spruce (at least quality C in accordance with NEN 5466) dimensions: 14 mm x 16 mm.

### 1.2.6.4 Adhesive

- Adhesive on the basis of esterified starch
- FAAYFOAM: single component polyurethane foam aerosol
- FAAYFIX: thixotropic single component polyurethane construction adhesive aerosol.

 Page
 6 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

### 1.2.6.5 Mineral wool

Rock wool:

- thickness 25 mm, density ca. 45 kg/m3 (IW100)
- thickness 40 mm, density ca. 45 kg/m3 (IW90, HW90, IW148 and IW200)
- thickness 65 mm, density ca. 45 kg/m3 (IW135)

#### 1.2.6.6 Temporary and cavity wall laths and shoes

Spruce temporary and cavity wall laths and shoes, of minimum quality class C according to NEN 5466, for wall, floor and ceiling joints.

### Table 2 Dimensions

Wall type	Temporary lath	Cavity wall lath	Shoe
GP22	-	20x50 mm	35x32 mm
PG60	-	20x50 mm	35x70 mm
PG70	-	20x50 mm	35x80 mm
PG90	-	20x50 mm	35x100 mm
HW19	-	28x38 mm	35x21 mm luxury
VP35	-	28x38 mm	35x45 mm
SP54 (with film)	19x54 mm	-	35x64 mm
SP54	19x54 mm	-	35x64 mm
HW54	28x38 mm luxury	-	-
VP54	19x54 mm	-	35x64 mm
VP54 + 1x plasterboard 9.5 mm	19x54 mm	-	35x64 mm
VP54 + 2x plasterboard 9.5 mm	19x54 mm	-	-
VP70	19x70 mm	-	-
SP70	19x70 mm	-	-
IW90	-	28x44 mm	40x90 mm
HW90	-	28x50 mm	40x74 mm luxury
IW100	-	28x38 mm	35x45 mm
IW100 + 1x plasterboard 9.5 mm	-	28x38 mm	35x45 mm
IW135	-	28x63 mm	35x45 mm
IW148	-	28x38 mm	35x64 mm
IW200 (2x VP54)	19x54 mm	28x90 mm	35x64 mm
IW200 (2x VP70)	19x70 mm	28x58 mm	-

#### 1.2.6.7 Covering laths

Covering laths for ends.

- type VP54, HW54, SP54 (with film) and SP54 - type VP70 and SP70

meranti	MDF
22 mm x 81 mm	28 mm x 76 mm
22 mm x 96 mm	28 mm x 93 mm

### 1.2.6.8 Skirting boards

meranti MDF

9 mm x 45 mm 9 mm x 45 mm

- 13 mm x 56 mm

### 1.2.6.9 Foam tape

PVC foam tape with closed cell structure, density ca. 100 kg/m<sup>3</sup>. Dimensions: 2 mm x 19 mm.

 Page
 7 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 1.2.6.10 Steel I, T profiles and aluminium T profiles:

Steel I shaped connection profile, galvanised to a minimum layer thickness of 15  $\mu$ m. Dimensions:

- GP22, HW19, VP35	35x70 mm	flange thickness 2.5 mm, body thickness 0.6 mm
- IW100	35x70 mm	flange thickness 2.5 mm, body thickness 0.6 mm
<ul> <li>IW90 and HW90</li> </ul>	35x70 mm	flange thickness 2.5 mm, body thickness 0.6 mm
- IW135	50x100 mm	flange thickness 2.5 mm, body thickness 1 mm

Steel T shaped connection profile, galvanised to a minimum layer thickness of 15  $\mu$ m. Dimensions:

- GP22, HW19, VP3535x50 mmflange thickness 2.5 mm, body thickness 0.6 mm- IW10035x50 mmflange thickness 2.5 mm, - body thickness 0.6 mm- IW90 and HW9035x50 mmflange thickness 2.5 mm, body thickness 0.6 mmWith wall types IW90, HW90 and IW100, two T profiles connect to make an I profile.

Aluminium T profile. Dimensions: - SP54 and SP70

50x50 mm flan

flange thickness 4 mm, body thickness 4 mm

## 1.2.6.11 Corner protectors

Stainless steel on paper, total width 50 mm.

### 1.3 Marking

The products are marked with:

- logo or name KOMO®;

- attest with product certificate number 20196;

- fire resistance if ≥ 30 minutes (where applicable)

Position of the mark: on the bottom edge of the wall panels.

During manufacture of the wall panels, the marking symbols of the products supplied under product certificate may be lost, so that these products are no longer recognisable as certified products. This attest with product certificate nonetheless guarantees that the products have been supplied under the product certificate.

### 2 PROCESSING INSTRUCTIONS

The details referred to in the processing instructions are included in the technical documentation (no. 1 to 6, issues from January 2003) of Faay Vianen B.V.

### 2.1 Transport and storage

The panels are covered by Faay Vianen B.V. with a plastic sleeve. The carrier is responsible for ensuring that this packaging remains undamaged during transport. The other parts of the wall are not packed in plastic. The carrier must ensure proper, moisture-free covering.

The panels and accessories should be stored on site at a relative humidity between 40% and max. 70%, moisture-free, flat and protected against rising damp. Laid on a minimum of 3 ribs of 100 mm x 100 mm (not supplied). A maximum of three packs may be stacked on top of each other.

Store the fibre-reinforced grout and FAAYFIX adhesive dry and frost-free. The fibre-reinforced grout and FAAYFIX are suitable for interior use only. See the packaging for shelf-life.

If the panels have to be moved manually, preferably use a trolley on pneumatic tyres (do not shift the panels over each other in order to avoid damage to the plasterboard).



 Page
 8 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

2.2

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

### Climatic construction site conditions in the working area

- the building should be wind and water tight and tidy;
- during assembly and grouting of the walls, the temperature should be above +5°C and the relative humidity before, during and after processing the elements should be between 40% and max. 70%. However, it is advisable to keep the temperature above +10 °C when grouting the walls.

Wet working, such as plastering and floor covering work cause a large rise in

relative humidity. This work should thus preferably be carried out before installing the walls.

- before the elements can be worked with, they should first be fully acclimatised to allow the elements to take on the same humidity as the relative humidity of the building's interior climate as is the case when in use.
- ensure good ventilation of the space.
- heat the space evenly during the cold periods. Rapid heating may lead to tension in the elements, resulting in deformation and/or cracking occurring.

Grouting the seams may only be carried out if no further major deformation of the sheets can be expected. Avoid building heaters using fossil fuels, as they generate a great deal of humidity. Do not have warm or hot air blown directly onto the walls.

## 2.3 Assembly

### Assembly markings

A 'V' symbol is printed at the bottom of each element. In order to ensure that the wall is placed in a flat surface and to keep any thickness tolerances on one side with respect to the lengthwise axis, it is recommended to have the brand name + KOMO<sup>®</sup> stamp (at the bottom end of the panel) showing on the same side. The V point indicates the flat side.

### Glueing

If the walls are finished seamlessly and in wet cells, with the wall types GP22, VP35, SP54, VP54, SP70, VP70, IW90, IW100, IW135, IW148, IW200 (2x VP54) and IW200 (2x VP70), all joints should be glued with FAAYFIX adhesive. For this, follow the directions for application as shown on the sheet 'FAAYFIX for glueing walls & ceilings' as included in our technical documentation.

## Expansion

Expansion joints should be included in the wall:

- if expansion joints are included in the building shell (facing walls);
- at the transition between two or more different building shell structures;
- in wet cells (tiled walls) one expansion joint centre-to-centre max. 4 m<sup>1</sup>;
- with walls of length > 10 m<sup>1</sup>, centre-to-centre one expansion joint max. 10 m<sup>1</sup> (do not push elements flush against each other but leave 2-3 mm space, do not glue the element joint and fill the space with sealant that retains its elasticity) or fit an expansion joint (see expansion joint supplier's processing instructions);
- with frame openings, if the frame panel or wall section above the frame opening is lower than 500 mm, an expansion joint on one side of the frame opening between frame panel or wall section and the rest of the wall surface.

The expansion joint should be continued up to the final finishing layer.

## 2.3.1 Floor joints

With wall types SP54 (with film), SP54, HW54, VP54, VP70, SP70 and IW200 (2x VP70), a wooden temporary lath is attached to the finished floor with the aid of nails, screws or hammer-in plugs.

The distance to the centre of the attachments may be at most 800 mm. The wall panels are placed on these wooden temporary laths. There is a groove in the wooden temporary laths. The tongue used for the joint between the panels should run through into this groove. With wall types SP54 and SP70, an aluminium T profile may also be used instead of a wooden temporary lath. The aluminium T profile has pre-drilled holes with a distance to the centre of 600 mm (see details in technical documentation no. 1 to 6, from January 2003 edition). With wall types GP22, PG60, PG70, PG90, VP35, IW90, HW90, IW100, IW135, IW148 and IW200 (2x VP54) wooden shoes fitted with a rebate are used instead of temporary laths, so that the wall elements can be placed against a point of contact (see details in technical documentation no. 1 to 6, from January 2003 edition). Before the skirting boards are installed, a sealant should be applied to at least one side on the seam between the temporary lath and floor to prevent sound leaks (in the case of noise requirements). For fire requirements, reference is made to Paragraph 3.1.6.

 Page
 9 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

### 2.3.2 Ceiling joints

With wall types SP54 (with film), SP54, HW54, VP54, VP70, SP70 and IW200 (2x VP70), a wooden temporary lath is attached against the ceiling with the aid of nails, screws or hammer-in plugs. The distance to the centre of the attachments may be at most 800 mm. There is a groove in the wooden temporary laths. The tongue used for the joint should run through into this groove (see details in technical documentation no. 1 to 6, from January 2003 edition).

With wall types GP22, PG60, PG70, PG90, VP35, IW90, HW90, IW100, IW135, IW148 and IW200 (2x VP54) wooden shoes fitted with a rebate are used instead of temporary laths, so that the wall elements can be placed against a point of contact.

With wall types GP22, PG60, PG70, PG90, VP35, IW90, HW90, IW100 and IW135, wooden cavity wall laths may be used instead of wooden shoes (see details in technical documentation no. 1 to 6, from January 2003 edition). Before the skirting boards are installed, a sealant should be applied to at least one side on the seam between the temporary lath and floor to prevent sound leaks (in the case of noise requirements).

An adjustment gap of at least 10 mm should be retained in connection with possible bending of the ceiling structure above the wall panels and the wooden temporary laths or shoes.

This adjustment gap should be filled with builders' foam for the sound insulation. To prevent sound leaks, before the skirting boards are installed, a sealant that retains its elasticity must be applied to at least one side on the seam between the temporary lath and the building shell (in the case of noise requirements).

For fire requirements, reference is made to Paragraph 3.1.6.

### 2.3.3 Partition, wall joints

With wall types SP54 (with film), SP54, HW54, VP54, VP70, SP70 and IW200 (2x VP54), a half wooden tongue is attached to the wall with the aid of nails, screws or hammer-in plugs. The wall panels are inserted over this wooden tongue. With wall types GP22, PG60, PG70, PG90, VP35, IW90, HW90, IW100 and IW135, a wooden cavity wall lath is attached to the wall with the aid of nails, screws or hammer-in plugs. The wall panels are attached to this with screws.

With wall types IW148 and IW200, one cavity wall side is placed cold against the wall with the aid of builder's foam, nails, screws or hammer-in plugs. The other cavity wall side is inserted over the half wooden tongue. A strip of sealant or foam with closed cell structure that retains its elasticity should be applied to prevent sound leaks in the case of noise requirements (see details in technical documentation no. 1 to 6, from January 2003 edition).

For fire requirements, reference is made to Paragraph 3.1.6.

#### 2.3.4 Attaching panels to each other and/or to structure behind

With wall types SP54 (with film), SP54, HW54, VP54, VP70, SP70, IW200 (2x VP54) and IW200 (2x VP70), the panels are attached to each other with the aid of a tongue and groove joint. The separate tongues are made of chipboard. The tongue should run the entire height of the wall, whereby with wall types IW148 and IW200, care must be taken that the tongues are not inserted in the same cross-section. The tongue joint between the different cavity wall sides is staggered at least 200 mm.

With wall type VP35, the panels are joined to each other with the aid of a triplex tongue. A felt lath should be fitted horizontally with a distance to the centre of at most 1.8 m between the VP35 elements and the structure behind to prevent the wall bending.

If the VP35 has a vinyl finish, the elements are joined with the aid of metal I or T shaped connection profiles.

With wall types GP22, IW90, HW90, IW100 and IW135, metal I or T shaped connection profiles are used (see details in technical documentation no. 1 to 6, from January 2003 edition).

If the walls are finished seamlessly and in wet cells, with the wall types GP22, VP35, SP54, VP54, VP70, SP70, IW90, IW100, IW135, IW148, IW200 (2x VP54) and IW200 (2x VP70), <u>all joints should be glued with</u> **FAAYFIX adhesive**. For this, follow the directions for application as shown on the sheet 'FAAYFIX for glueing walls & ceilings' as included in our technical documentation.

With wall types PG60, PG70, PG90 in the 'system' design, PG connection strips, made of XPS foam with a strip of impact-resistant PVC, are used. Compensate for imperfections in the structure behind by using (plastic) adjustment wedges.

 Page
 10 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

For the wall types PG60, PG70, PG90 in the 'basic' design, no additional joints are used. The elements butt onto each other cold and are screwed straight onto the structure behind with plasterboard or stainless steel screws, centre-to-centre max. 600 mm. If the foundation meets the requirements shown below, the 'basic' elements may also be glued with FAAYFOAM or tile adhesive that retains its elasticity:

The foundation must be completely straight, flat and perpendicular and must be completely dry with max. moisture content of 6 vol.%. If there are differences in level >1.5 mm/m1, the foundation should be levelled with a levelling product suitable for the foundation (see levelling product supplier's processing instructions). On a porous foundation, a primer suitable for the foundation should be used (see primer/tile adhesive supplier's processing instructions).

The PG basic elements are attached to the structure behind using FAAYFOAM (adhesive foam). The foundation should be free of loose matter, grease and dust. Dampen the foundation lightly beforehand. Remove dust from the rear side of the PG basic elements, and apply a strip of FAAYFOAM in W form of ca. 15 mm in cross-section to the contours of the sheet and over the full height of the element. Press the panel into position and support for 10 minutes (adhesive open time 10-15 minutes). This support may be omitted if the sheets are also mechanically attached to the structure behind at five points, apart from the FAAYFOAM glueing. For further processing instructions, see our FAAYFOAM documentation.

For fire requirements, reference is made to Paragraph 3.1.6.

### 2.3.5 Corners and meeting points

With 90° corners, glue the corner joints with FAAYFIX adhesive and attach the elements to each other with chipboard screws of sufficient length, max. distance to centre 300 mm, or by first attaching a half wooden tongue to one wall panel, after which the other wall panel is inserted over this tongue.

Leave one element shorter by a plasterboard thickness and, after constructing the corner, place a separate strip of plasterboard over the sawn edge (see details in technical documentation no. 1 to 6, from January 2003 edition).

With other corners, first saw the elements to the angles desired, and then glue the corner joint with FAAYFIX adhesive and attach the elements to each other with chipboard screws of sufficient length, max. distance to centre 300 mm.

As alternative, with wall types VP54, SP54 (with film), SP54, VP70 and SP70, wooden corner posts of 45° and 90° may also be used. With wall types IW148 and IW200, the corners and meeting points should be constructed in such a way that the cavity wall is retained. With a meeting point, the internal cavity wall should be interrupted (see details in technical documentation no. 1 to 6, from January 2003 edition).

### 2.3.6 Ends

The ends of wall types VP54, HW54, SP54 (with film), SP54, VP70 and SP70 may be constructed with covering laths fitted with a rebate that can be inserted into the wall panel. For attachment, chipboard screws or FAAYFIX adhesive should be used.

(see details in technical documentation no. 1 to 6, from January 2003 edition).

## 2.3.7 Construction of other joints

Window joints.

The window joints may be constructed in accordance with the details in the technical documentation no. 1 to 6, from January 2003 edition. For attaching the frames, chipboard screws or builder's foam should be used.

### 2.3.8 Additional plasterboard / facing wall

In order to improve the sound insulation, plasterboard can be fitted to one or two sides. These plasterboard sheets run through down to the floor. A gap of at least 10 mm should be retained at the ceiling to accommodate possible bending of the ceiling structure. The plasterboard is attached along the edges and in the centre of the sheet with the aid of plasterboard screws or rivets. The distance to the centre of the attachments may be 300 mm max.

The seams of the plasterboard are installed staggered with respect to the wall elements.

 Page
 11 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 2.3.9 Provisions for completion and finishing

Glueing

If the walls are finished seamlessly or in wet cells, with the wall types GP22, VP35, SP54, VP54, SP70, VP70, IW90, IW100, IW135, IW148, IW200 (2x VP54) and IW200 (2x VP70), all joints should be glued with FAAYFIX adhesive. For this, follow the directions for application as shown on the sheet.

'FAAYFIX for glueing walls & ceilings' as included in our technical documentation.

- Finishing seams
- 1) start of grouting:
  - during and after grouting of the walls, the temperature should be above +10°C, and the relative humidity before, during and after processing the elements should be between 40% and max. 70%. However, the best result with the least risk of shrinkage and expansion is achieved if the temperature and the relative humidity during grouting corresponds to the climate that will prevail later in the space (ca. 20°C and relative humidity 60%);
  - grouting with the sheets may start only after all the wet work,
  - such as plastering and floor covering work, has been carried out;
  - moreover, no further significant changes in length should be expected;
  - the wall system, all glued joints, tile adhesive and sheet surface should be completely dry;
  - the space should be heated moderately and gradually (ensure adequate ventilation).

#### 2) preparation:

- joint surfaces dry, and free of dust and grease;
- dampen the plaster core where the plasterboard has been cut into, sawn or damaged;
- protect surfaces that may not come into contact with the grouting products with e.g. plastic film, masking tape etc.
- 3) joint finishing:
  - with plasterboard with chamfered edge apply gauze tape;
  - fill the joint between the sheets with fibre reinforced grout, using a broad spatula;
  - after adequate setting, sand the imperfections in the layer of fibre reinforced grout;
  - finish the joint off with a thin layer of fibre reinforced grout, (see processing instructions of fibre reinforced grout).
- 4) Smoothness:

The assessment of smoothness takes place according to the table below. This table, taken from the STABU Standard Technical Specifications, shows the smoothness classes of a wall or ceiling in six levels. Requirements are laid down per smoothness level that the surface without final finishing must meet. If exceptional requirements are set for the smoothness of the foundation, completely skimming or plastering the entire surface is necessary. The work needed depends on the smoothness class prescribed or desired and the finishing. For an optimal final result, the correct products should also be used to finish the wall; for this, follow the processing instructions of the finishing product chosen and observe the pre-treatment advised by the manufacturer.

 Page
 12 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

Plasterboard to be used: - finishing level - <b>A</b> - :	<ul> <li>with chamfered side, furnish the seams with gauze tape and skim in accordance with the skimming product supplier's directions;</li> <li>with facet side. Skim seams once in accordance with the directions; follow processing instructions for fibre reinforced grout. Then cover the entire wall surface with a max. 1 mm thick layer of fibre reinforced grout; follow processing instructions of fibre reinforced grout.</li> </ul>
- finishing level - <b>B</b> - :	<ul> <li>with chamfered side, furnish the seams with gauze tape and skim in accordance with the skimming product supplier's directions;</li> <li>with facet side. Skim seams twice in accordance with directions and then sand once; follow processing instructions for fibre reinforced grout</li> </ul>
- finishing level - C- :	<ul> <li>with facet side. Skim seams in accordance with the directions; follow processing instructions for fibre reinforced grout.</li> </ul>
- finishing level - <b>D</b> - :	<ul> <li>with facet side. Skim seams in accordance with the directions; follow processing instructions for fibre reinforced grout.</li> </ul>
- finishing level - <b>E</b> - :	<ul> <li>with facet side. Skim seams in accordance with the directions; follow processing instructions for fibre reinforced grout.</li> </ul>
- finishing level - F- :	- with facet side. Follow finishing product supplier's processing instructions.

Table 3 Finishing levels for plasterboard on system walls.

### Source: tba

Class		A	В	C	D	E	F
Finishing level		Smooth surface for very high visual requirements.	Smooth surface for normal visual requirements.	Even surface for normal visual requirements.	Even surface.	Skimmed surface.	Unskimmed surface.
Visual requirements for the surface.		Highest quality Virtually no imperfections or grooves visible under light. Visible streaks and imperfections < 1 mm remain possible under glancing light.	Strict requirements. Unfilled joints not permitted. Limited imperfections and grooves visible under direct light. Streaks and imperfections may be visible under glancing light.	Standard requirements.	Minimum requirements. Imperfections and finishing grooves ≤ 1 mm are permitted.	No requirements.	No requirements.
Finishing requirements for surface and joints.		Joints and screw holes filled and surface completely skimmed with a layer of ca. 1 mm thick.	Joints and screw holes filled and finished (C) and sanded to achieve a scarcely perceptible, flowing transition to the sheet surface.	Joints and screw holes filled and finished to achieve a flowing transition to the sheet surface.	Joints and screw holes filled to achieve a smooth transition to the sheet surface.	Joints and screw holes filled with a suitable joint filler.	NA
Area of application.		Smooth, (slik) sheen wall coverings och as metallic andlor vinyl wallpaper. (Slik) sheen paint systems and high quality thin stucco antico systems.	Suitable for thin and light-coloured finishes of walpaper, textile and finely structured finishes, such as (sprey) plasters of grain size < 1 mm. Matte paint systems.	Suitable for heavy vinyl wallpaper or medium- coarse textured finishes, such as fibreglass film with coarse structure and (spray) plasters of grain size 1 to 3 mm.	Suitable for coarsely structured finishes, such as (spray) plasters of grain size > 3 mm, heavy duty wallpaper.	Suitable only for functional application, such as for stability, fire resistance or sound insulation. Tiling on plaster fibre plates. Plastering.	Suitable for tiling on plasterboard, panelling. Plastering on plasterboard. Temporary structures etc.
Smoothness tolerances in mm with a distance between the measuring points of:	0.4 m	<1	<1	< 1,5	<2	NA	NA
	1 m	1.5	2	3	3	3	3
	2 m	1.5	2	3	4	NA	N/A
Smoothness tolerances for a corner in mm with a distance between the measuring points of:	0.4 m	1.5	2	4	4	4	4
Perpendicular:		Maximum deviation: 2 mm/m					

#### Additional requirements:

If a wall or ceiling is installed by one party and skimmed by another party, then for the installing party, the smoothness of its wall or ceiling must meet the tolerances of the 1 m and 2 m distances of the level of finish originally agreed.

#### Explanation:

Class A: Highest quality level and so the most effective method for an even surface. The risk of joints being visible or attachment devices showing through is minimised by the layer of film, although visible imperfections smaller than 1 mm cannot be avoided with glancing light.

Class B: High quality with risk present of joints being visible or attachment devices showing through.

Class C: Standard quality if no class has been agreed.

#### Visual assessment

During assessment, the surface to be checked may not be illuminated by glancing light in any form. The visual assessment is done at a distance of 1 m from the surface to be assessed. Take into consideration that the product has been installed manually.

#### Trial surface

It is advisable beforehand to pick out a trial surface as reference for the agreed result.

 Page
 13 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 5) finishing:

- preparation of the foundation:

before the finishing can be started, the following points should be considered:

- \* the foundation as well as the joints must be flat, dry and firm, and free of frost, dust, dirt and cracks;
- \* remove oil, and grease marks or seal off in accordance with the directions of the manufacturer of the finishing product;
- \* remove mortar splashes, grout residue etc. from the foundation and make good any damage;
- \* when sanding, attention should be paid to ensure that the plasterboard surface is not damaged or roughened;
- \* the joints should be completely set and dry;
- apply the pre-treatments that the manufacturer of the finishing products stipulates and follow the
  processing instructions of the finishing products chosen. If no specific primer is stipulated by the
  manufacturer of the finishing product, then apply a primer suited to the plaster board to the entire wall
  surface, before commencing application of other finishings. This primer ensures:
- \* removing differences in porosity and texture between the plasterboard surface and the joint plaster;
- \* bonding dust particles still present;
- \* be able to remove wallpaper later without damaging the plasterboard surface.
- For other product information / processing instructions, reference is made to the information / processing instructions of the primer's manufacturer.

### - finishing;

\* paints:

Most commercially available paint is suitable, e.g. latex. Paints on a mineral base (lime, water glass and silicate paints) are not suitable. For other product information / processing instructions, reference is made to the paint's manufacturer. Untreated plasterboard surfaces may discolour yellow as a result of the long-term and intense impact of light. In this case, using a special undercoat that prevents yellow showing through is recommended.

\* wallpaper:

All commercially available wallpaper types are suitable. Applying a primer beforehand is recommended in order to be able to remove the wallpaper from the plasterboard surface later without damage. For other product information / processing instructions, reference is made to the manufacturer of the wallpaper and primer.

\* spray plaster:

All recognised brands of spray plaster are suitable. A primer stipulated by the manufacturer of the plaster system is necessary. For other product information / processing instructions, reference is made to the spray plaster's manufacturer.

\* tiling:

The walls are suitable for installing tiles In bathrooms and similar spaces, water resistant (WR) plasterboard should be used; see also Chapter 2.3.10 'finishing wet cells'.

The tiles should be glued using tile adhesive that should be combed horizontally and that retains its elasticity. The joints must be made permanently watertight. For other product information / processing instructions, reference is made to the manufacturer of the tiles / tile adhesive.

 Page
 14 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 2.3.10 Finishing wet cells:

- the walls may be used in wet spaces, if elements with water resistant plasterboard are used (recognisable from the green colour of the surface) and all joints are glued with FAAYFIX adhesive, also see Paragraph 2.3.4. In order to prevent warping, finish the walls with coatings and/or tiling if the relative humidity has a constant value of < 70 %. See also Paragraph 2.2 'Climatic construction site conditions in the working area'. The foundation must be completely straight, flat and perpendicular and must be completely dry with max. moisture content of 6 vol.%. If there are differences in level >1.5 mm/m1, the foundation should be smoothed with a smoothing product suitable for the foundation (see smoothing product supplier's processing instructions). Before laying the tiles, the primer stipulated by the tile adhesive manufacturer should be applied to counter porosity. For other product information / processing instructions, reference is made to the information / processing instructions of the manufacturer of the tiles / tile adhesive.
   furnish all seams with self-adhesive gauze tape and skim with fibre reinforced grout.
- Follow the processing instructions for fibre reinforced grout.
- 3) install water pipes and drains as far as possible on the surface. If the pipes are nevertheless buried in the wall, protect the wall against contact with condensation by using lagged pipes. Make the pipe gap of dimensions such that the pipe remains min. 5 mm from the wall, secure the pipe properly and fill the gap with builders' foam. All holes for the pipes must be finished durably and thoroughly watertight. For this, the holes must be ± 10 mm larger than the diameter of the pipes using sealant that retains its elasticity and a layer of unthinned Kim coating suitable for plasterboard, strengthened using a membrane inlay.
- 4) all floor and wall connections must be protected up to a height of at least 50 mm above the finished floor against water entering. This can be achieved by applying a substantial layer of unthinned Kim coating suitable for plasterboard, strengthened using a membrane inlay. In addition, all holes and vertical internal and external corners must be coated with a substantial layer of unthinned Kim coating suitable for plasterboard, strengthened using a membrane inlay. For other product information / processing instructions, reference is made to the manufacturer of the Kim coating.
- 5) all walls in wet spaces must be completely treated, from floor to ceiling joint, with a watertight coating suitable for plasterboard. For other product information / processing instructions, reference is made to the manufacturer of the watertight coating.
- 6) after the work steps listed under points 1 to 5 have been carried out, the wall surface should be finished watertight to a height of at least 1.70 m<sup>1</sup>, using e.g. tiling, and coated with a watertight layer above that. See also the stipulation under Paragraph 2.3.9 'Provisions for completion and finishing', Point 5 'finishing, tiling'. For other product information / processing instructions, reference is made to the manufacturer of the tile adhesive and tiles.
- 7) all wall-wall and wall-floor joints, as well as any ends of cladding in shower niches etc., must be finished permanently watertight with sealant that retains its elasticity.
- 8) expansion joints, see Paragraph 2.3 'Assembly'.
- 9) the walls may be used as partition between spaces with different climates. Whether there is a risk of condensation in the wall under normal circumstances must be investigated. The wall may not be finished as damp inhibiting on both sides.

 Page
 15 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 2.3.11 Attaching objects to the wall:

- light objects (to max. 30 kg):
- \* PG60, PG70 and PG90: metal turbo plasterboard plug (to max. 20 kg) or PD board plug (to max. 30 kg);
- \* GP22 and IW90: chipboard screws of thickness 5 mm (to max. 25 kg) or screws with toggle plugs (to max. 35 kg);
- \* other walls: chipboard screws of thickness min. 5 mm (do not pre-drill).
- heavy objects (to max. 50 kg, for attaching sanitary ware see very heavy objects):
  - \* PG60, PG70 and PG90: right through the element into the wood behind e.g. 18 mm underlayment, attach with chipboard screws (coarse thread) or wood screws;
  - \* GP22 and IW90: right through the element into the wood behind e.g. 18 mm underlayment, attach with chipboard screws (coarse thread) or wood screws;
     \* other walls: chipboard screws (coarse thread, do not pre-drill).
- heavy objects (such as wash basins etc.) to max. 100 kg):
- \* PG60, PG70 and PG90: right through the element into the wood behind e.g. 18 mm underlayment or attach directly into structure behind with sanitary ware bolts or wood screws (do not predrill);
- \* GP22 and IW90: right through the element into the wood behind e.g. 18 mm underlayment, attach with sanitary ware bolts or wood screws (do not pre-drill);
- \* VP35, HW19, HW90, IW100 and IW135: right through the element into the wood behind e.g. 18 mm underlayment, attach with sanitary ware bolts or wood screws (do not pre-drill);
- \* other walls: with sanitary ware bolts or wood screws (do not pre-drill).;
- Attaching electricity, telecommunications and CAI cables:
- \* with wall types HW54, SP54, VP54, VP70 and SP70, in which standard two-cable shafts have been included, the electricity, telecommunications and CAI cables can be installed in the shafts.
- \* with wall types HW90, IW90, IW100, IW135, IW148 and IW200, the electricity, telecommunications and CAI cables can be installed in the cavity wall.
- \* with facing wall types PG60, PG70, PG90, GP22, HW19 and VP35, the electricity, telecommunications and CAI cables can be installed in the cavity between the facing wall and the existing wall.
- \* With fire and/or noise requirements, the wall sockets must be staggered at least 600 mm. with respect to each other on either side of the wall. If fire requirements have been set for the wall, use fire-resistant electrical sockets (this applies to all wall types), see also the stipulations in fire and sound reports.

- Attaching water and gas pipes:

\* water and gas pipes are installed as far as possible during construction, see also Chapter 2.3.10 'Finishing wet cells'.

## 3 PERFORMANCE ON THE BASIS OF REQUIREMENTS OF THE BUILDING DECREE

## 3.1 Performance from a safety point of view

GENERAL STRENGTH OF THE BUILDING CONSTRUCTION; BB Section 2.1

## 3.1.1 Strength of the building structure; BD Article 2.2, 2.3 and 2.4

The strength of the walls, determined in accordance with the applicable standards, meets the performance requirements of the Building Decree. This means that the walls are able to withstand the normally occurring loads caused by wind, falling furniture and changes in the shape of the bearing structure. The walls may be used with differences in level as stated in Article 2.17 of the Building Decree.

RESTRICTION OF THE DEVELOPMENT OF A FIRE-HAZARDOUS SITUATION; BD Section 2.8

## 3.1.2 Boiler room; BD Article 2.57

Materials of a possible heating space comply with the following in accordance with NEN-EN 13501-1,

- applied in the proximity of a heating space to fire class A1;
- for the top side of a floor, stairs or access ramp to fire class A1fl.

## 3.1.3 Shaft, conduit or duct; BD Article 2.58

Materials used on the inside of any shaft, conduit or duct comply, over a thickness > 0.01 m measured perpendicular to the inside and determined in accordance with NEN-EN 13501-1, with fire class A2. Page16 of 21Number:20196/15Issued:01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

RESTRICTION OF THE DEVELOPMENT OF FIRE AND SMOKE; BD Section 2.9

### 3.1.4 Inside surface; BD Article 2.67

From both side of the wall panels the fire class is at least fire class B and smoke class s2. A maximum of 5% of the total surface area of the construction components of each individual space is exempted from the required fire class, which can be determined for each project individually.

### 3.1.5 Construction component; BD Article 2.72

Due to the lack of a Ministerial Regulation, no statements are (yet) made in this attest with product certificate about the restriction of the development of fire and smoke in a structural part.

(FURTHER) RESTRICTION OF THE SPREAD OF FIRE AND DISTRIBUTION OF SMOKE; BD Sections 2.10 and 2.11

### 3.1.6 Resistance to fire breakthrough and flashover (WBDBO) and smoke spread; BD Articles 2.84 and 2.94

If the resistance to fire breakthrough and flashover (WBDBO) between two spaces is determined in accordance with NEN 6068, whether the fire resistance with respect to the separating function of the wall panels is at least 30 minutes must be investigated. Those parts of the partition structure that do not meet these conditions must be seen as an opening. Fire resistance with respect to the separating function of the wall panels is determined in accordance with EN-1364-1.

Table 4 shows examples of how to apply fire resistance with respect to the separating function. If fire-resistance requirements apply, the edge joints should be sealed with fire-resistant builders' foam and fire-resistant sealant, in accordance with the fire reports. If fire requirements apply, for wall sockets, see Paragraph 2.3.11.

Wall type	EI (minutes)	Report number
VP54	EI30	2014-efectis-R000801
VP54 (spruce temporary lath	EI30	2014-efectis-R000922/BGG/TNL
floor/ceiling)		
VP54 + 2 x 9.5 mm plasterboard	EI60	2015-efectis-R001013/BGG/TNL
(on one side)		
VP70	EI45	2014-efectis-R000110.102a
		(rev.no.2)
VP70 (spruce lath floor/ceiling)	El45	2014-efectis-R000922/BGG/TNL
VP70 (spruce lath floor/ceiling,	EI30	2014-efectis-R000922/BGG/TNL
not glued)		
VP70 (not glued)	EI30	2014-efectis-R000922/BGG/TNL
VP70 (1 extra plasterboard 12.5	EI60	2014-efectis-R000817 (rev.no.2)
mm.)		
IW90 (I profile, glued)	EI45	2015-efectis-R000429 (rev.no.1)
IW90 (TT profile, glued)	EI30	2015-efectis-R000615/BGG/TNL
IW100 (I profile, glued)	EI60	2015-efectis-R000605
IW100 (I profile, not glued)	EI60	2015-efectis-R000812/BGG/TNL
IW100 (TT profile, glued)	EI60	2015-efectis-R000812/BGG/TNL
IW100 (TT profile, not glued)	EI30	2015-efectis-R000812/BGG/TNL
IW135 (I profile, glued)	El45	2015-efectis-R000779
IW135 (I profile, glued + 1 extra	EI60	2015-efectis-R01183/BGG/TNL
plasterboard 9.5 mm.)		
IW148	EI90	2015-efectis-R000982
IW148 (spruce lath floor/ceiling)	EI90	2015-efectis-R000922/BGG/TNL
IW200 2x VP54	EI90	2015-efectis-R000943
IW200 2x VP54 (not glued)	EI60	2015-efectis-R000922/BGG/TNL
IW200 2x VP54 (spruce	EI90	2015-efectis-R000922/BGG/TNL
temporary lath floor/ceiling,		
glued)		
IW200 2x VP54 (spruce	EI60	2015-efectis-R000922/BGG/TNL
temporary lath floor/ceiling, not		
glued)		
IW200 2x VP70	EI120	2014-efectis-R000909 (rev.no.1)
IW200 2x VP70 (not glued)	EI60	2015-efectis-R000922/BGG/TNL
IW200 2x VP70 (spruce	EI60	2015-efectis-R000922/BGG/TNL
temporary lath floor/ceiling,		
glued)		

#### Table 4 Fire resistance with respect to the partition function

 Page
 17 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

Wall type	EI (minutes)	Report number
IW200 2x VP70 (spruce temporary lath floor/ceiling, not	E160	2015-efectis-R000922/BGG/TNL
glued)		
IW200 2x VP54 (junction box, not	EI60	2015-efectis-R000922/BGG/TNL
fire resistant)		
IW200 2x VP54 (spruce	EI60	2015-efectis-R000922/BGG/TNL
temporary lath floor/ceiling,		
glued, junction box not fire		
resistant)		

## 3.2 Performance from a health point of view

SOUND INSULATION BETWEEN SPACES; BD Section 3.4

### 3.2.1 Characteristic air-noise level difference and weighted contact-noise level (other plot); BD Article 3.16

- the characteristic air-noise level difference for the noise transfer from a confined space to a confined space not in an accommodation area of an adjacent residential function on another plot, determined according to NEN 5077, is at least 47 dB, for wall type IW200;

- the weighted contact-noise level for the noise transfer from a confined space to a confined space not in an accommodation area of an adjacent residential function on another plot, determined in accordance with NEN 5077, is at most 59 dB, for wall type IW200.

## 3.2.2 Characteristic air-noise level difference and weighted contact-noise level (different user functions on the same plot); BD Article 3.17

- the characteristic air-noise level difference for the noise transfer from a confined space to a confined space not in an accommodation area of an adjacent residential function on the same plot, determined in accordance with NEN 5077, is at least 47 dB, for wall type IW200;

- the weighted contact-noise level for the noise transfer from a confined space to a confined space not in an accommodation area of an adjacent residential function on the same plot, determined in accordance with NEN 5077, is at most 59 dB, for wall type IW200.

## 3.2.3 Characteristic air-noise level difference and weighted contact-noise level (accommodation areas of same residential function); BD Article 3.17a

The insulation value for sound in air, determined in accordance with NEN 5079, for wall type VP54 + on both sides 1 x 9.5 mm plasterboard, is  $D_{nT,A,k} \ge 32$  dB. For assessing the sound insulation in different situations, the values shown in Table 5, determined to a depth of the receiving room of 3 m, may be used.

 Page
 18 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

Table 5 Acoustic insulation				
Wall type	D <sub>nT,A,k lab</sub> dB	R <sub>w</sub> dB		
VP54	28 dB	30 dB		
VP54 + 9.5 mm plasterboard	34 dB	35 dB		
VP54 + 2 x 9.5 mm	35 dB	36 dB		
plasterboard				
SP54 (with film)	24 dB	27 dB		
SP54	24 dB	27 dB		
HW54	24 dB	27 dB		
VP70	28 dB	29 dB		
SP70	28 dB	29 dB		
IW90	46 dB	50 dB		
HW90	42 dB	42 dB		
IW100	44 dB	45 dB		
IW100 + 9.5 mm	48 dB	49 dB		
plasterboard				
IW135	46 dB	49 dB		
IW148	55 dB	56 dB		
IW200 (2x VP54)	58 dB	± 59 dB		
IW200 (2x VP70)	58 dB	± 59 dB		
GP22 incl. rock wool	improvement ca. 10-20 dB			
HW19 incl. rock wool	improvement ca. 10-20 dB			
VP35 incl. rock wool	improvement ca. 10-20 dB			
PG60	N/A			
PG70	N/A			
PG90 N/A				

EXCLUSION OF MOISTURE; BD Section 3.5

## 3.2.4 Factor of the temperature; BD Article 3.22

The joints between the interior walls, see the details in the technical documentation no. 1 to 6 from the January 2003 edition, have an interior wall surface temperature factor  $\geq$  0.65.

### 3.3 Performance from the viewpoint of energy efficiency

THERMAL INSULATION; BD Section 5.1

### 3.3.1 Thermal insulation; BD Article 5.3

For assessing the heat resistance in different situations, the values shown in Table 6, determined in accordance with NEN 1068, may be used.

 Page
 19 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

Table 6 Heat insulation				
Wall type	R <sub>c</sub> [m <sup>2</sup> K/W]	U [W/m <sup>2</sup> K]		
VP54	0.42	1.54		
VP54 + 9.5 mm plasterboard	0.45	1.47		
VP54 + 2 x 9.5 mm plasterboard	0.49	1.38		
SP54 (with film)	0.49	1.38		
SP54	0.49	1.38		
HW54	0.52	1.33		
VP70	0.58	1.23		
SP70	0.60	1.20		
IW90	1.25	0.68		
HW90	1.35	0.63		
IW100	1.09	0.76		
IW100 + 9.5 mm plasterboard	1.13	0.73		
IW135	2.17	0.41		
IW148	1.89	0.47		
IW200 (2x VP54)	2.07	0.44		
IW200 (2x VP70)	2.39	0.38		
GP22 excl. rock wool	0.10	2.77		
HW19 excl. rock wool	0.15	2.44		
VP35 excl. rock wool	0.21	2.13		
PG60	2.65	0.35		
PG70	3.05	0.31		
PG90	3.51	0.27		

## 3.3.2 Air volume flow; BD Article 5.4

In the application examples below, the contribution to the air volume flow, determined according to NEN 2686, is at most  $0.5 \text{ dm}^3/\text{m/s}$ .

### Application examples:

The elements specified in Chapter 1, that are applied according to Chapter 2 with air seals in the external partition structure, including connections and openings in accordance with Chapter 2, are suitable for restricting the air volume flow of the dwelling to at most  $0.2 \text{ m}^3$ /s.

Page20 of 21Number:20196/15Issued:01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 4 OTHER PERFORMANCES

**4.1** Strength of building structure under influence of eccentric vertical loads; AD 1003 Art. 5.1 The partition structures, including their joints, are not broken or damaged in a way hazardous to the user under the impact of a load caused by hanging heavy objects and fall in the Bending Class II.

### 4.2 Strength of building structure against shocks; AD 1003 Art. 5.2

The partition structures including their joints are not penetrated or damaged in a way hazardous to the user under the impact of a shock from a soft body of 240 Nm or under the influence of shock from a hard body of 10 Nm. If the tongues are glued, the partition structures including their joints are not penetrated or damaged in a way hazardous to the user under the impact of a shock from a soft body of 500 Nm.

#### 4.3 Movement and deformation; AD 1003 Art. 5.3

#### 4.4 Behaviour of joints with load-bearing structure; AD 1003 Article 5.3.1

The joints of the partition wall with the bearing structure are designed in such a way that the partition structures can accommodate bending of at least 10 mm under the influence of shape changes in the bearing structure normally to be expected, for instance bending of the structure above and possible changes in the shape of the partition structure itself.

### 4.5 Shape changes; AD 1003 Article 5.3.2

### a) Shape changes owing to eccentric loads

The residual or ultimate bending resulting from differences in measurement in the wall on site and from loads resulting from hanging heavy objects that are accepted on half the loads, as noted in Appendix 3 of AD 1003, do not total more than 0.002 times the height of the wall to a maximum of 5 mm.

#### b) Shape changes under shock impact

Under the impact of a shock from a soft body of 120 Nm, the temporary bending of the non-bearing interior wall does not exceed:

Table 7 Bending			
Bending class	Bending requirement		
Class II	≤ 0.016 times height of wall; maximum 40 mm		

For application in non-bearing residence-separating and residence boundary walls, the temporary bending of the wall may not exceed 10 mm under the impact of a shock from a soft body of 120 Nm. The wall is classified as Class III.

#### Table 8 Resistance to shock impact

Classification of the resistance to shock impact	Temporary bending caused by shock impact
Class I implies	0 to 2 mm
Class II implies	2 to 5 mm
Class III implies	5 to 10 mm

c) Shape changes resulting from evenly distributed loads

Under the influence of sudden changes in air pressure in a space, or a person leaning against the wall, induced by an evenly distributed load of 230 N/m<sup>2</sup> by agreement, the bending does not exceed 0.002 times the height of the wall to a maximum of 5 mm.

## 4.6 External appearance and smoothness; AD 1003 Art. 5.4

The wall panels are smooth and have an even surface without visible defects. The wall panels appear quite smooth under glancing light. The seams between the wall panels, gaps for piping and wiring and minor damage should be smoothed out, in accordance with the processing instructions as included in this attest with product certificate.

### 4.7 Provisions for completion and finishing; AD 1003 Art. 5.5

The wall panels offer the options of:

- the application of the usual finishes, such as wallpaper, paint and tiles (see Chapter 2.3.9, finishing);
- attaching objects to the wall and installing in the wall electrical, telecommunications and CAI cables (see Chapter 2.3.11 attachment of objects to the wall).

 Page
 21 of 21

 Number:
 20196/15

 Issued:
 01-12-2015

## NON-BEARING INTERIOR WALLS MADE OF FLOOR HEIGHT FAAY WALL PANELS

## 5 TIPS FOR THE USER

5.1

On delivery of non-load-bearing, interior walls, inspect whether:

- what was ordered has been supplied;

- the marks and the method of marking are correct;
- the products show no visible defects as a result of transport, etc.

If the products are rejected on the grounds of any of the above, please contact:

## Faay Vianen B.V.

and, if necessary

the certification body SKH Office building 'Het Cambium', Nieuwe Kanaal 9c, 6709 PA Wageningen, the Netherlands PO Box 159, 6700 AD Wageningen, The Netherlands Telephone: +31 (0)317 45 34 25 Email: mail@skh.org Fax: +31 (0)317 41 26 10 Website: http://www.skh.org

## 5.2 Product certificate

The manufacturer is required on request to make available to the purchaser a copy of the complete attest with product certificate.

## 5.3 Application and use

The Faay panels are suitable for use in residential and utility construction.

## 5.4 Validity check

Check whether the attest with product certificate is still valid; consult the SKH website: http://www.skh.org.