FAAY Retention walls

quality from core to top

3

inexhaustible source of raw materials

fire resistant

speed

sound-proof

screw-proof

sustainability

thermal insulation

FAAY
WALLS AND CEILINGS

Faay Vianen B.V. specialist in partitions and ceiling systems for over 35 years.

But not just a 'run-of the mill' supplier! We produce most of our partitions on the basis of flax waste, a by-product of the linen-, paper- and linseed oil production.

This provides them with exceptional building-physical features: shock-proof, fire-resistant and sound-proofing, thermally insulating, screw-proof and very easy to assemble.

Faay has a wall or ceiling system suitable for every imaginable situation. So it's no surprise that builders and architects feel at home with FAAY, whether it concerns a new build, renovations or utility architecture.

Besides these, the aesthetic qualities are also very high and the flexibility - because our systems can quite easily be disassembled - is unsurpassed.

The quality of FAAY walls and ceilings has been established in KOMO certificates 20196/09 (walls) and 20785/09 (ceilings) and is guaranteed by ISO Norm 9001.

In addition Faay complies with the requirements of the environmental management system (environmentally friendly operational management) determined in the ISO 14001 standard.

There are four series in the FAAY product spectrum: partitions, retention walls, insulation- and party walls and ceiling systems. The retention walls are dealt with in this brochure.

Retention walls

Along with the nail and screw bearing VP35 type of wall that has existed for years, Faay also supplies type GP22 which is an alternative for situations where loss of space or too much weight

Retention walls applied in a clothing store.

are to be avoided. Both types of wall are very suitable for renovation projects and projects where the sound-proofing of existing (wall) structures is to be improved. Faay supplies the W'all-in-One system (types, PG40, PG50, PG60-, PG70$_{system}$, PG$_{basic}$ and the Free-standing PG) for improving the thermal insulation of an outside wall. Walls can be treated with any finish (such as FAAY Wall spraying, paint, wallpaper, decorative plaster, tiles and plaster). FAAY walls can be supplied with various vinyl finishes. This vinyl is available in several designs and qualities. In combination with the de luxe skirting board system the room is completely finished!

Use in homes and offices.

We will send you a sample on request.

The retention walls are available from stock and can be placed rather quickly. This translates into considerable savings during assembly. This also applies to all the other FAAY wall and ceiling systems.

No cutting waste

The panels can be cut to size on site or cut to length in the factory. Sawing loss is practically negligible as the assortment has 6 standard sizes (from 2400 to 3600 mm).

Choose FAAY retention walls for renovations:
Space-saving! Time-saving!

GP22 retention walls for renovation work

GP22

Wall type GP22 has been developed as a space, weight and cost saving alternative to the already existing retention wall type VP35. The GP22 element is extremely suitable for use in renovation work and projects that have to be embellished or, if combined with insulating material, where the sound-proofing is to be improved. The GP22 panel consists of two plasterboard sheets between which a 2.5 mm thick chipboard has been glued. Because the chipboard is smaller than the plasterboard sheets, tension is created for the assembly with steel profiles (I-section and T-section)

Easy assembly

Assembling this sort of wall is very easy. The wall can be attached to the floor and ceiling by means of sole pieces. The GP22 element has grooves along the longitudinal sides into which the T-section fit so that the wall is completely smooth. Insulation material can be applied between the steel profiles behind the retention wall. This type of retention wall guarantees a minimum loss of space, up to 65 mm. Chipboard screws without plugs can be used for hanging objects (up to ± 25 kg). FAAYFIX® should be used for seamless joints and in wet areas. The GP22 element is also the basis element for insulation wall IW90 and ceiling system GP22 VO.

More documentation about the IW90, IW100 or GP22 VO can be sent to you on request or can be downloaded from our website.

Retention wall in a renovated conference room.

Technical details GP22

Lengths
2400, 2600, 2800, 3000, 3200, 3600 mm

Thickness
22 mm

Weight
15,40 kg/m²

Fire resistance
> 30 min.
(NEN 6069)

Insulation
2,77 W/m²K
incl. 40 mm insulation and one-brick wall

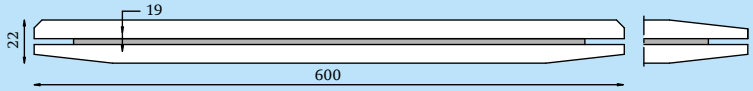
Sound Insulation
Improvement ca. 10-20 dB

KOMO
attestation with certificate 20196/09

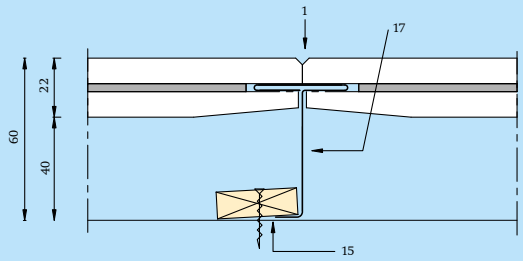
Detail coding

1 possibly glue with FAAYFIX® and fill and finish off with FAAY FILL & FINISH
2 wall socket
3 FAAYFIX® glue
4 foam band
5 vapour inhibitory layer
6 whitewood sole piece
7 mineral wool
8 chipboard tongue
9 half wooden tongue
10 watertight band
11 plastic U-section
12 corner bead
13 Pur foam/FAAYFOAM
14 edge lath
15 block
16 I-beam
17 T-section
18 nonius hanger
19 plaster board
20 water-repellent plasterboard
21 moist coating
22 tile glue (apply horizontally)
23 silicone paste
24 wall tile/floor tile
25 whitewood cavity closer
26 Meranti/ MDF boarding
27 mounting wedge
28 coconut felt
29 wire shaft
30 artificial fibre profile
31 front view
32 flax
33 cardboard
34 I-section
35 PIR
36 mineral wool with glass fibre
37 post
38 PU kit
39 wire cavity
40 plywood
41 PVC top layer
42 ventilation
43 extruded polystyrene
44 clips
45 sound damping attachment
46 chipboard
47 HPL plate
48 cover profile
49 steel suspension bracket
50 steel edge profile
51 connecting rail

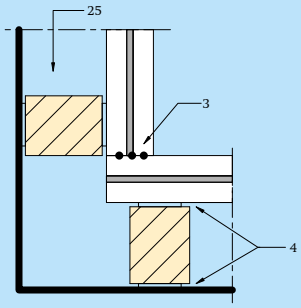
GP22



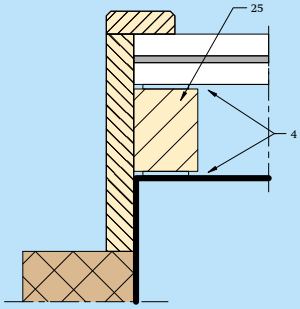
3.4.1. *Construction element*



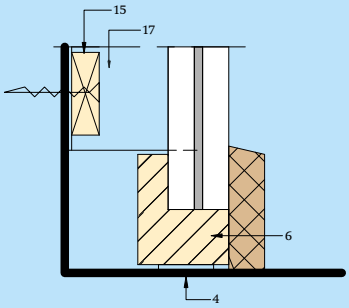
3.4.2. *Joint*



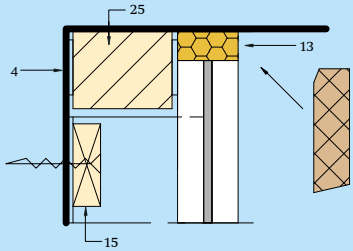
3.4.3. *Wall/ Corner connection*



3.4.4. *Casing connection*



3.4.5. *Floor connection*



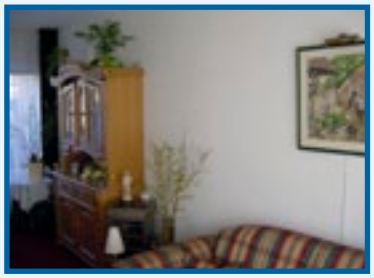
3.4.6. *Ceiling connection*

Choose FAAY retention walls for renovations:
sound-proofing, rigid, strong and heat-insulating!

VP35 retention walls for renovation work

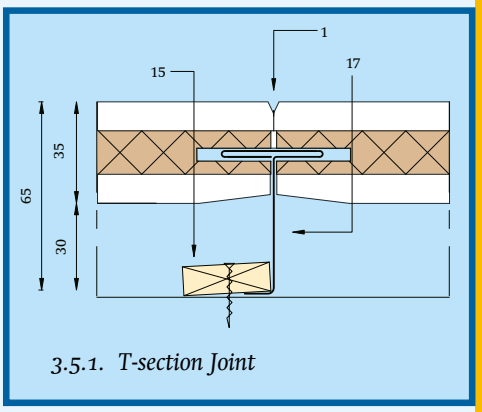
VP35

Wall type VP35 has been developed as a retention wall for renovation work and projects where sound-proofing is to be improved.



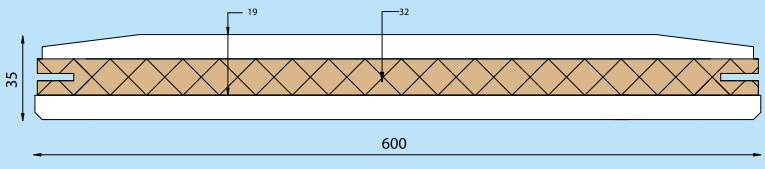
The panel is built up from a core of flax waste in between two sheets of plasterboard. The panels can be fitted by means of a wooden profile on the floor and a wooden cavity batten on the ceiling. The profile has a rebate so that the wall elements can be fixed in place against a rabbet. A wooden profile can also be used on the ceiling instead of a cavity batten. The core of the panel has been shifted in relation to the plasterboard so that the panel has a tongue and groove. Faay recommends assembling the elements loose from the wall behind to achieve the optimum result. A band of felt must be applied horizontally to prevent sagging.

A damp-proofing foil must be placed immediately behind the panel when using VP35 as a thermally insulating retention wall on, for instance, a façade.
If the walls behind are wet, provisions must be taken so that the elements cannot be affected by the moisture. The VP35 can easily be provided with a vinyl finish on one side in the factory, just like the GP22. Steel T-section are used to join the panels to each other instead of the tongue and groove system (see detail 3.5.1.).
The electrical and data communication wiring can be installed behind the elements in the cavity. If wall type VP35 serves as the basis element for the IW100 and IW135 walls or it is finished with vinyl, this is indicated by IW35.



3.5.1. *T-section Joint*

More documentation about the IW100 and IW135 can be sent to you on request or can be downloaded from our website.



3.5.2. *Horizontal T-section*

Technical details VP35

Lengths
2400, 2600, 2800,
3000, 3200, 3600 mm

Thickness
35 mm

Weight
23,18 kg/m²

Fire resistance
45 min.
(NEN 6069)

Insulation
2,13 W/m²K
incl. 40 mm insulation and one-brick wall

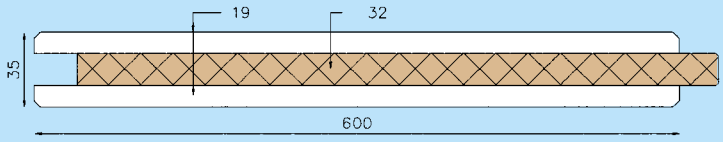
Sound Insulation
Improvement ca. 10-20 dB

KOMO
attestation with certificate
20196/09

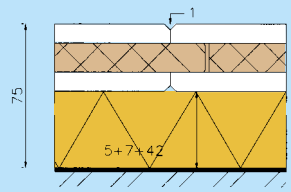
Detail coding

1 possibly glue with FAAYFIX® and fill and finish off with FAAY FILL & FINISH
2 wall socket
3 FAAYFIX® glue
4 foam band
5 vapour inhibitory layer
6 whitewood sole piece
7 mineral wool
8 chipboard tongue
9 half wooden tongue
10 watertight band
11 plastic U-section
12 corner bead
13 Pur foam/FAAYFOAM
14 edge lath
15 block
16 I-beam
17 T-section
18 nonius hanger
19 plaster board
20 water-repellent plasterboard
21 moist coating
22 tile glue (apply horizontally)
23 silicone paste
24 wall tile/floor tile
25 whitewood cavity closer
26 Meranti/ MDF boarding
27 mounting wedge
28 coconut felt
29 wire shaft
30 artificial fibre profile
31 front view
32 flax
33 cardboard
34 I-section
35 PIR
36 mineral wool with glass fibre
37 post
38 PU kit
39 wire cavity
40 plywood
41 PVC top layer
42 ventilation
43 extruded polystyrene
44 clips
45 sound damping attachment
46 chipboard
47 HPL plate
48 cover profile
49 steel suspension bracket
50 steel edge profile
51 connecting rail

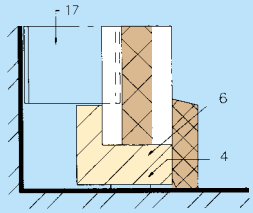
VP35



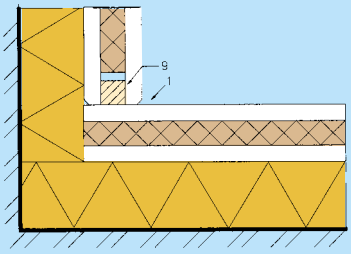
3.6.1. *Construction element*



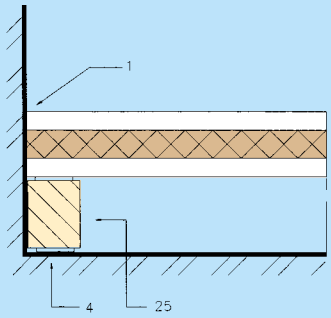
3.6.2. *Wall joint*



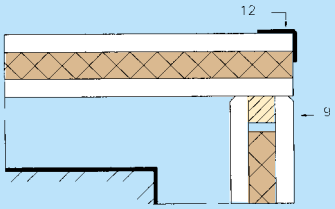
3.6.3. *Floor connection*



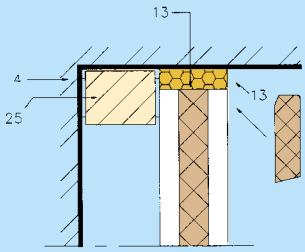
3.6.4. *Corner joint*



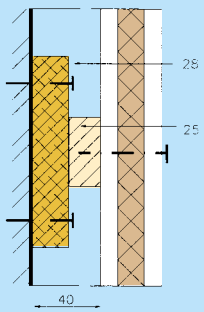
3.6.5. *Wall connection*



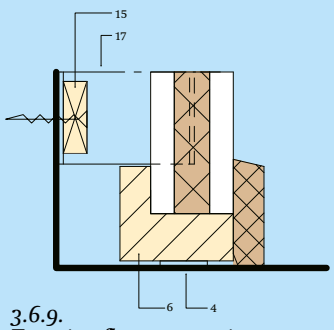
3.6.6. *Corner connection*



3.6.7. *Ceiling connection*



3.6.8. *Cross sleeper*



3.6.9. *T-section floor connection*

Now that the principle of sustainability is penetrating even further into building, energy-conserving construction is becoming increasingly more important. The W'all-in-One® panels from Faay give high thermal insulation with little loss of space. The special profiles prevent thermal bridges and thermal leakage from between the seams. They are designed so that the cavity is well ventilated and also make very speedy installation possible.

W'all-in-One panels, also good for the environment

Saving valuable space

A well insulated house saves heating costs and also contributes positively to decreasing CO_2 emissions. You get maximum thermal insulation with minimum wall thickness with a FAAY W'all-in-One retention wall (PG40, PG50, PG60 and PG70)! The PG panel consists of a combination of PIR bonded to a 9.5 mm thick plasterboard sheet. The insulating panel in combination with wooden profiles and an insulating assembly profile gives a high thermal insulation value of Rc 0,35 with a minimum wall thickness of 60 mm. PIR achieves very high insulation values even in very small thicknesses. You can save 50% (!) compared to traditional retention walls made with mineral wool. In other words, FAAY PG panels with PIR are half as thick as traditional systems, which mean that the final available net floor space is larger.

PIR: very fire proof!

PIR also has a number of extremely valuable properties in respect of fire. It contributes minimally to the development of smoke in the case of fire, in comparison to other insulation foams. It is as good as inflammable, it does not drip and has a very low smoke number <1m¹ (S1). PIR is therefore an extremely safe insulation material that contributes greatly to the fire-proofing of buildings and homes. And speaking of safety, working with PIR will not cause skin irritation!

Insensitive to damp

PIR is not only unaffected by fire, but also by damp. Applying an additional damp-proofing foil is therefore unnecessary; every FAAY PG retention wall is already sufficiently damp-proof due to the aluminium coating applied to the PIR. The Rc value of the whole construction is increased by 0.57 due to the reflective working of the foil. Insulation of the outer walls of older houses is possible without demolishing the existing wall construction with this combination.

Quicker and easier: PG$_{system}$

The PG panels are fixed at the bottom with a wooden sole piece and with a wooden cavity closer at the top. Faay has thought of a clever system to join the panels to each other. Thanks to the special PG connecting rails and the lengthwise rebates on the panels you are able to install a FAAY PG$_{system}$ retention wall in a trice. The number of operations is in fact considerably reduced! After all:

- application of vapour permeable foil between insulation material and existing wall
- application of vapour restraining foil between insulation and plasterboard finish
- separate measuring and application of insulation material
- separate measuring and application of final lining
- screws in the panels of the PG system
- skimming screw holes in the final lining

is not necessary!

In short, very quick and qualitatively accurate insulation!

Connecting rails

The newly developed PG connecting strip consists of a body of insulating foam with a strip of hard, screw-bearing plastic on the front. This plastic strip is wider than the body as a result of which it fits in the rebates on the longitudinal sides of the panels. The assembly profiles are fixed to the rear construction with counter-sunk screws (no thermal bridge!). You therefore only have to position the panels and slide into place. The PG panels themselves do not need to be screwed down! This is much faster and much cheaper! Additionally the connecting strips can be cut to size with a normal handsaw.

No thermal bridge, no heat leakage!

The well thought-out design and construction of the connecting rails prevents heat leakage from the seams between the panels. Because the screws in the connecting strip are covered up and do not lie on the surface, they do not form thermal bridges.
The PG connecting rails, the ones with insulating foam as well, also allow the panels to slide into each other without thermal leakage. In short, correct assembly with an optimal result is a piece of cake!

Finishing as desired

The FAAY PG panels are supplied as standard with plasterboard in the AK version (facet edge). These edges provide the opportunity to finish the seams invisibly in the traditional way (gauze tape, FAAY FILL & FINISH). But because the PG panels are installed without screws to prevent thermal bridges, it is also possible to leave the seams visible. This makes a difference in the time needed and the plastering costs. This option is possible with PG panels with FK plasterboard (facet edge). The PG panels have screw-free end lining. Because of this a PG retention wall can supplied ex-factory with vinyl. A choice can be made from a wide range of designs and various vinyl qualities.
Whether you choose a vinyl finish (and visible seams) or to apply a finish such as FAAY Wall spraying, paint, decorative plasters, tiles or plaster yourself (with the option of invisible seams), with FAAY PG retention walls you can give all the wall surfaces in all the inner spaces the same seam detailing!

PG$_{basic}$

The PG$_{basic}$ panels have straight edges instead of profiled longitudinal edges. You fix them using FAAYFOAM, a one-component adhesive foam, directly onto the back construction, without an air cavity (follow the processing instructions as shown on the FAAYFOAM sheet). This is especially handy in new build, for thermally insulating a new, smooth partition wall between an unheated garage and a living room for instance. If PG$_{basic}$ is applied to the inside of an outer wall it will not be possible for damp to penetrate from outside to inside. If this risk exists, choose the PG$_{system}$, a satisfactory solution is guaranteed!

Insulation on inside of sloping roof

Both PG$_{system}$ and PG$_{basic}$ can be used for thermally insulating a sloping roof. The panels can be placed between or against the rafters.

When the PG panels are used for insulating an existing sloping roof the use of vapour-resistant foil is not necessary. You apply not only insulation but also a finishing lining. You save foil and labour and material costs! When the surface is suspended or sloping and very wet 5 mechanical points should be installed per sheet.

Free-standing PG

Apart from the regular PG system, we now offer a free-standing PG system. This free-standing wall is fully self-supporting because of the solid stiles made of laminated and finger jointed pinewood. The assembly is no longer dependent on the wall behind. Free-standing PG is therefore the perfect solution for extremely rough, damaged, crumbling, leaning or damp walls.

Additionally, free-standing PG is ideal for buildings where wall-mounting is not possible or allowed, for instance in monumental buildings.

Free-standing PG offers optimal insulation in the most demanding circumstances. It's fast, simple, effective and attractively priced!

Vinyl, a pleasure to behold.

FAAY PG retention wall:

- complete system where the foil is as applied standard, ensures fewer failure costs
- the Rc value of the whole construction is increased by 0.57 (m² K/W) through reflective action of the foil
- provides better thermal insulation with a smaller layer, saves up to 50% of the space
- no thermal bridge or heat leakage
- unaffected by moisture
- simple detailing, very quick assembly (0.25 mu/m²)
- lightweight, therefore easy to handle
- any finish possible
- attractively priced
- sustainable and recyclable
- complies with the Building Decree demands
- KOMO certified

Detail coding

1 possibly glue with FAAYFIX® and fill and finish off with FAAY FILL & FINISH
2 wall socket
3 FAAYFIX® glue
4 foam band
5 vapour inhibitory layer
6 whitewood sole piece
7 mineral wool
8 chipboard tongue
9 half wooden tongue
10 watertight band
11 plastic U-section
12 corner bead
13 Pur foam/FAAYFOAM
14 edge lath
15 block
16 I-beam
17 T-section
18 nonius hanger
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37 post
38 PU kit
39 wire cavity
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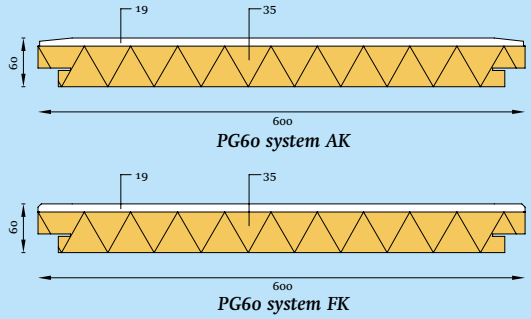
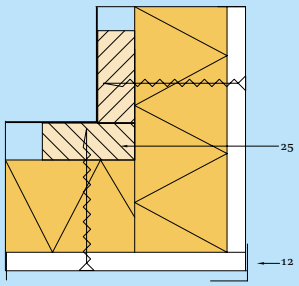
41 PVC top layer
42 ventilation
43 extruded polystyrene
44 clips
45 sound damping attachment
46 chipboard
47 HPL plate
48 cover profile
49 steel suspension bracket
50 steel edge profile
51 connecting rail

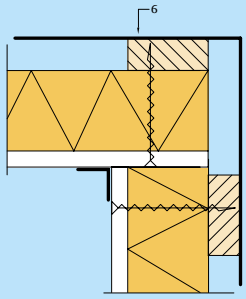
W'all-in-One panels PG40 and PG50



3.10.1. *Construction element*



3.10.2. *External corner detail*



3.10.3. *Inside corner detail*

Technical details PG40 system

Lengths
2600 x 600 mm
3000 x 600 mm

Thickness
40 mm

Weight
8,8 kg/m²

Fire resistance
< 20 min.
(NEN 6069)

Insulation
0,63 W/m²K
inclusive 20 mm air cavity and one-brick wall

Sound Insulation
Improvement ca. 5 dB

KOMO
attestation with certificate
20196/09

Technical details PG50 system

Lengths
2600 x 600 mm
3000 x 600 mm

Thickness
50 mm

Weight
8,95 kg/m²

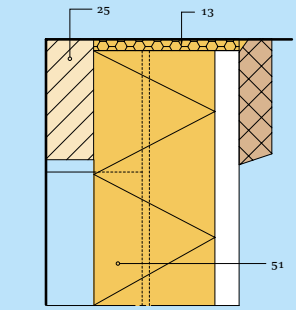
Fire resistance
< 20 min.
(NEN 6069)

Insulation
0,41 W/m²K
inclusive 20 mm air cavity and one-brick wall

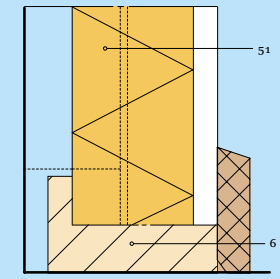
Sound Insulation
Improvement ca. 5 dB

KOMO
attestation with certificate
20196/09

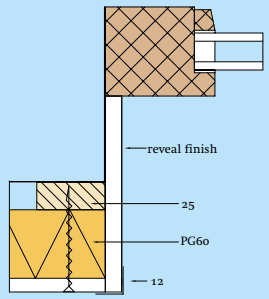
W'all-in-One panels PG60 and PG70



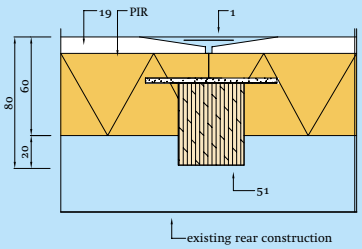
3.11.1. *Ceiling connection*



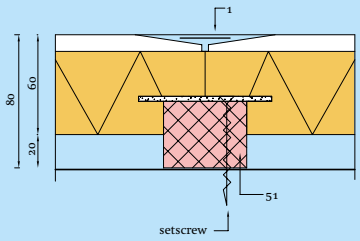
3.11.2. *Floor connection*



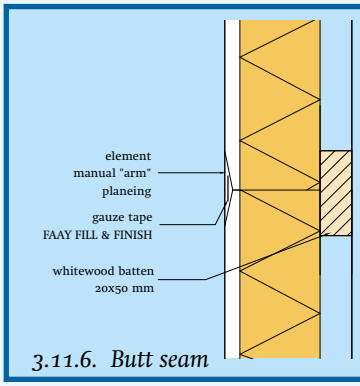
3.11.3. *Casing connection*



3.11.4. *Free-standing joint*



3.11.5. *Joint*



3.11.6. *Butt seam*

Technical details PG60 system

Lengths
2600 x 600 mm
3000 x 600 mm

Thickness
60 mm

Weight
9,1 kg/m²

Fire resistance
< 20 min.
(NEN 6069)

Insulation
0,35 W/m²K
inclusive 20 mm air cavity and one-brick wall

Sound Insulation
Improvement ca. 5 dB

KOMO
attestation with certificate
20196/09

Technical details PG70 system

Lengths
2600 x 600 mm
3000 x 600 mm

Thickness
70 mm

Weight
9,4 kg/m²

Fire resistance
< 20 min.
(NEN 6069)

Insulation
0,31 W/m²K
inclusive 20 mm air cavity and one-brick wall

Sound Insulation
Improvement ca. 5 dB

KOMO
attestation with certificate
20196/09

FAAY PG_{system} and PG_{basic} are available in all the thicknesses above. Ask about the delivery times, prices and minimum quantities.

Supply programme FAAY wall and ceiling systems

Technical details	Thickness	Weight	Fire resistance	Insulation	Sound Insulation	
					$I_{uk,\,lab}$ NEN 5079	Rw
VP54	54 mm	28,12 kg/m²	45 min.	1,54 W/m²K	-24 dB	30 dB
VP54 + 1x plaster	64 mm	36,12 kg/m²	62 min.	1,47 W/m²K	-18 dB	35 dB
VP54 + 2x plaster	73 mm	44,12 kg/m²	>62 min.	1,38 W/m²K	-17 dB	36 dB
SP54	54 mm	23,82 kg/m²	≤20 min.	1,38 W/m²K	-28 dB	27 dB
VP70	70 mm	34,20 kg/m²	45 min.	1,23 W/m²K	-24 dB	29 dB
SP70	70 mm	32,00 kg/m²	45 min.	1,20 W/m²K	-24 dB	29 dB
IW90	90 mm	36,80 kg/m²	82 min.	0,68 W/m²K	-6 dB	50 dB
IW100	100 mm	47,36 kg/m²	75 min.	0,76 W/m²K	-8 dB	45 dB
IW100 + 1x plaster	110 mm	55,36 kg/m²	>90 min.	0,73 W/m²K	-4 dB	49 dB
IW135	135 mm	51,36 kg/m²	>75 min.	0,41 W/m²K	+6 dB	49 dB
IW148	148 mm	58,24 kg/m²	120 min.	0,47 W/m²K	+3 dB	56 dB
IW200/54 (2x VP54)	200 mm	58,24 kg/m²	>120 min.	0,44 W/m²K	+6 dB	±59 dB
IW200/70 (2x VP70)	200 mm	70,40 kg/m²	>120 min.	0,38 W/m²K	+6 dB	±59 dB
GP22	22 mm	15,40 kg/m²	>30 min.	2,77 W/m²K[a)]	Improvement ca. 10-20 dB	
VP35	35 mm	23,18 kg/m²	45 min.	2,13 W/m²K[a)]	Improvement ca. 10-20 dB	
PG60	60 mm	9,10 kg/m²	<20 min.	0,35 W/m²K[b)]	Improvement ca.	5 dB
PG70	70 mm	9,40 kg/m²	<20 min.	0,31 W/m²K[b)]	Improvement ca.	5 dB
GP22 VO ceiling	22 mm	18,00 kg/m²	>75 min.[c)]	0,45 W/m²K[e)]	+3 dB[c)]	55 dB[c)]
FR19 VO ceiling	19 mm	8,00 kg/m²	>70 min.[c)]	0,44 W/m²K[e)]	+3 dB[d)]	55 dB[d)]

Formaldehyde: class E1

All our tests have been carried out in accordance with the **Dutch NEN standards**.

Table date: October 2009

Declaration Table:
a) inclusive 40 mm insulation and one-brick wall
b) inclusive 20 mm air cavity and one-brick wall
c) inclusive mineral wool under wooden floor
d) inclusive mineral wool under stony floor
e) inclusive 65 mm mineral wool

Extensive showroom

In our showroom all the systems and products are arranged in many variations. Each type of wall and ceiling is presented in a surveyable manner. You are quite welcome, also together with your client.

Modern AV-room

In the spacious audio-visual presentation room all the technical aids are available to give advanced presentations in any form.

Useful workshops

Faay regularly organizes workshops where the tricks of the assembly trade are taught to you. Still more gain of time and ease of assembly are the result. The maximum number of participants per workshop is 10 persons, so that everybody can be trained personally.

FAAY
WALLS AND CEILINGS

Documentation

Besides the brochure about FAAY Retention walls there is documentation available about:

- Wall and ceiling systems in general
- Partitions
- KBL-system
- W'all-in-One®
- Insulation walls & party walls
- Ceilings systems
- Frames
- Building Schools for the Future
- Prefab cavity barrier
- FAAY FILL & FINISH
- FAAYFIX® assembly glue
- FAAYFOAM® adhesive foam
- Assembly instruction
- Wall spraying.

This documentation will be sent to you at your request or can be downloaded from our website.

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