



**GROUP OF TESTING LABORATORIES  
GRYFITLAB**

ul. Prosta 2, Łozienica, 72-100 Goleniów  
tel. (091) 431 82 29, fax (091) 418 97 57, mobile: +48 607-900-480  
[www.gryfitlab.com](http://www.gryfitlab.com), e-mail: [contact@gryfitlab.com](mailto:contact@gryfitlab.com)

**Fire resistance classification No. LBO – 060 – KZ/20E**

Classified product:

**Non-loadbearing partition walls Norgips, double sided cladded with  
gypsum plasterboards Norgips GKF type DF, Norgips GKFI type DFH2  
or Norgips Acoustic Super type DFH2IR**

**Sponsor:**

Norgips Sp. z o.o.  
ul. Racławicka 93  
02-634 Warszawa

**Prepared by:**

Group of Testing Laboratories Gryfitlab  
ul. Prosta 2, Łozienica  
72-100 Goleniów

**Place and date of issue:**

Łozienica, 31.12.2020

Copy No. 1

The classification was printed in 3 copies. Copies Nos. 1, 2 – for the Sponsor, Copy No. 3 – AA

**1. This classification has been prepared based on the following documents:**

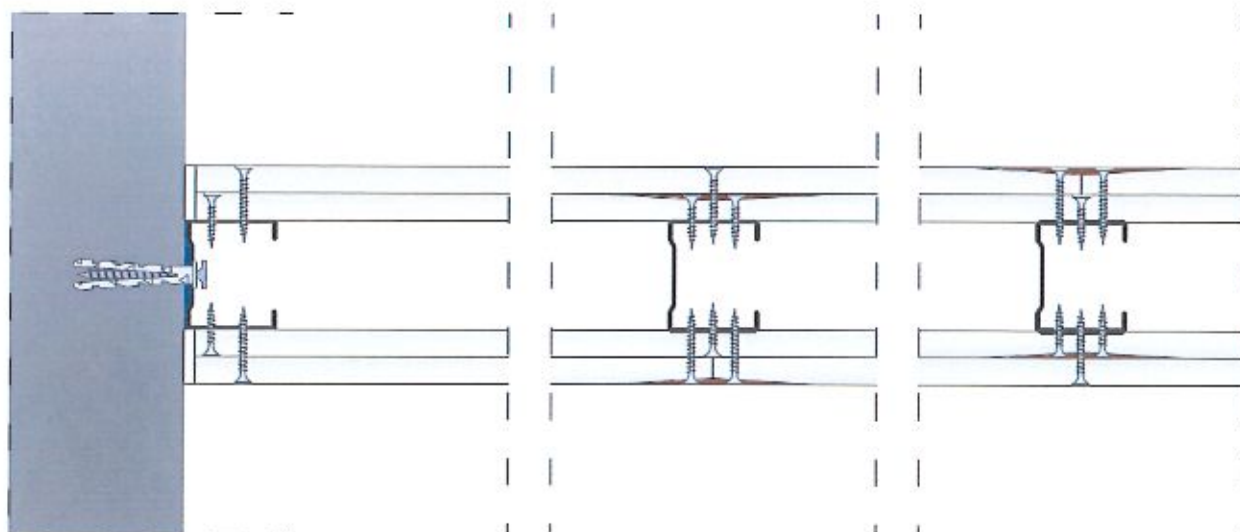
- 1.1. Standard PN-EN 1364-1:2015-08 Fire resistance tests for non-loadbearing elements – Part 1: Walls.
- 1.2. Standard PN-EN 1363-1:2020-07 Fire resistance tests – Part 1: General requirements.
- 1.3. Standard PN-EN 13501-2: 2016-07 Fire classification of construction products and building elements – Part 2: Classification using data from fire resistance tests, excluding ventilation services.
- 1.4. Standard PN-EN 13279-1:2009 Gypsum binders and gypsum plasters – Part 1: Definitions and requirements.
- 1.5. Standard PN-EN 13963:2014-10 Jointing materials for gypsum boards. Definitions – requirements and test methods.
- 1.6. Standard PN-EN 14566+A1:2012. Mechanical fasteners for gypsum plasterboard systems – Definitions, requirements and test methods.
- 1.7. Standard PN-EN 14195:2015-02 Metal framing components for gypsum board systems – Definitions, requirements and test methods.
- 1.8. Report No. LP01-6041/15/R22NP Non-loadbearing partition wall SD-2x12.5 DF CW50, double sided cladded with 2 x 12.5 mm thick gypsum plasterboards Norgips S GKF type DF manufactured by Norgips, with the framework made of system steel profiles Norgips CW50 and UW50, without filling. Building Research Institute (Instytut Techniki Budowlanej) – Pionki 2015.
- 1.9. Standard PN-EN 520+A1:2012 Gypsum plasterboards – Definitions, requirements and test methods.
- 1.10. Standard PN-EN 10143:2006 Continuously hot-dip coated steel sheet and strip – Tolerances on dimensions and shape.
- 1.11. Technical documentation provided by Norgips Sp. z o.o.

**2. Technical description of partition walls Norgips, double sided cladded with 12.5 mm thick gypsum plasterboards Norgips GKF type DF, Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR**

**2.1 Partition walls**

SD-2x12.5 GKF DF/CW 50, SD-2x12.5 GKF DF/CW 75, SD-2x12.5 GKF DF/CW 100, SD-2x12.5 GKFI DFH2/CW 50, SD-2x12.5 GKFI DFH2/CW 75, SD-2x12.5 GKFI DFH2/CW 100, SD-2x12.5 DFH2IR/CW 50, SD-2x12.5 DFH2IR/CW 75, SD-2x12.5 DFH2IR/CW 100, SD-2x12.5 GKF DF/VP 66, SD-2x12.5 GKF DF/VP 700, SD-2x12.5 GKF DF/VP 95, SD-2x12.5 GKF DF/VP 120, SD-2x12.5 GKFI DFH2/VP 66, SD-2x12.5 GKFI DFH2/VP 70, SD-2x12.5 GKFI DFH2/VP 95, SD-2x12.5 GKFI DFH2/VP 120, SD-2x12.5 DFH2IR/VP 66, SD-1x12.5 DFH2IR/VP 70, SD-1x12.5 DFH2IR/VP 95, SD-1x12.5 DFH2IR/VP 120

double sided cladded with 2x12.5 mm thick gypsum plasterboards Norgips GKF type DF or GKFI type DFH2 or 12.5 mm thick gypsum plasterboards Acoustic Super type DFH2IR, with the single framework



The walls are built on the frameworks made of profiles e.g. Norgips **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100** or **VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** which were made of nominally **0.55 mm ± 0.06 mm** or **0.6 mm ± 0.06 mm** thick cold bent galvanized steel.

The **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100** or **VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** perimeter profiles are fixed to the ceiling, floor and side walls by means of mechanical connectors such as, e.g.: wall plugs, dowels, etc. The aforementioned mechanical connectors are placed every **80 cm**.

**3 mm** thick e.g. Norgips polyethylene sealing tape is placed between the perimeter steel profiles and the ceiling, floor and side walls. Single profiles **CW 50, CW 75, CW 100** or **VP 66, VP 70, VP 95, VP 120** are positioned vertically and slid between the bottom and top shelves of, respectively, profiles **UW 50, UW 75, UW 100** or **HP 66, HP 70, HP 95, HP 120**. The axes of the adjacent CW or VP profiles are placed maximally every **60 cm** or every **62.5 cm**. The length of profiles **CW 50, CW 75, CW 100** or **VP 66, VP 70, VP 95, VP 120** should be **1.5 cm** less than the distance between the webs of the bottom and top profiles: **UW 50, UW 75, UW 100** or **HP 66, HP 70, HP 95, HP 120**.

The first layer of **12.5 mm** thick gypsum plasterboards **GKF type DF** or **GKFI type DFH2** or **Acoustic Super type DFH2IR** is fixed to the bottom **UW** or **HP** profiles and **CW** or **VP** profiles (posts) by means of screws **Ø3.5 x 25 mm** placed maximally every **75 cm**. The second layer of **12.5 mm** thick gypsum plasterboards **GKF type DF** or **GKFI type DFH2** or **Acoustic Super type DFH2IR** is fixed to the bottom **UW** or **HP** profiles and **CW** or **VP** profiles (posts) by means of screws **Ø3.5 x 35 mm** placed maximally every **25 cm**.

The boards are fixed in such a way that the vertical connections from two sides of the walls are not made on one and the same post in the first layer of the boards. The vertical connections are shifted in relation to one another by at least **30 cm**; usually they are shifted by **60 cm** or **62.5 cm**. The vertical connections in the second layer of the boards are shifted in relation to the vertical connections in the first layer of the boards by at least **30 cm**; usually they are shifted by **60 cm** or **62.5 cm**.

If there are horizontal connections on the surface of the wall, between the adjacent boards, they have to be shifted in relation to one another by at least **40 cm**. The horizontal connections in the second layer of the boards are shifted in relation to the horizontal connections in the first layer of the boards by at least **40 cm** and they are shifted in relation to the horizontal connections between the adjacent boards of the same layer by at least **40 cm**.

Screw heads, the vertical and horizontal connections between the **GKF type DF** boards or the **GKFI type DFH2** boards or the **Acoustic Super type DFH2IR** boards are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler**. The e.g. Norgips self-adhesive reinforcing tapes made of glass fibre or interfacing are applied at the connections between the boards. For final covering it is recommended to use jointing compounds **Norgips Extra Finish**, **Norgips Start & Finish** or **Norgips Finish**.

For acoustic reasons, it is possible to fill the wall with any mineral wool of the A1 class of reaction to fire.

Constructional details regarding the partition walls are presented in **Figures 1 - 4**.

The fire resistance classification of the walls is provided in **Table 1 – see columns 7 and 9**, the maximum height of the walls is specified in **Table 1 – see columns 8 and 10**.

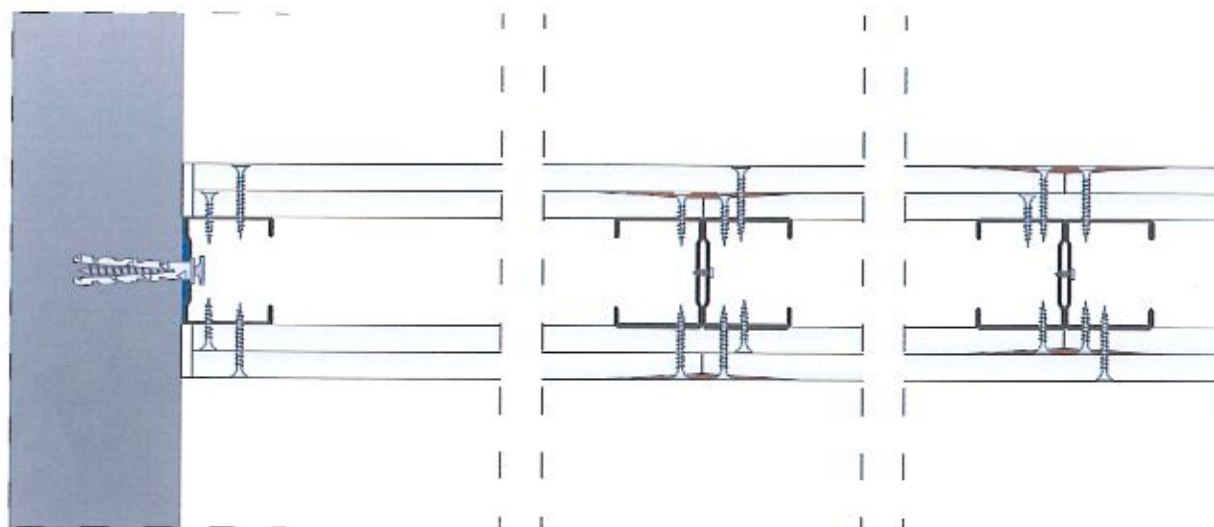
In places where there is the constructional dilatation of the building and when the length of a straight (without dilatation) section of the wall is more than 15 m one should apply dilatation (**see Figures 5 and 6**).

Electric cables and wall boxes for electric installations can be installed in the wall (**see Figure 17**).

## 2.2 Partition walls

**SD-2x12.5 GKF DF/CW 50 + CW 50, SD-2x12.5 GKF DF/CW 75 + CW 75, SD-2x12.5 GKF DF/CW 100 + CW 100, SD-2x12.5 GKFI DFH2/CW 50 + CW 50, SD-2x12.5 GKFI DFH2/CW 75 + CW 75, SD-2x12.5 GKFI DFH2/CW 100 + CW 100, SD-2x12.5 DFH2IR/CW 50 + CW 50, SD-2x12.5 DFH2IR/CW 75 + CW 75, SD-2x12.5 DFH2IR/CW 100 + CW 100, SD-2x12.5 GKF DF/ VP 66 + VP 66, SD-2x12.5 GKF DF/ VP 70 + VP 70, SD-2x12.5 GKF DF/ VP 95 + VP 95, SD-2x12.5 GKF DF/ VP 120 + VP 120, SD-2x12.5 GKFI DFH2/ VP 66 + VP 66, SD-2x12.5 GKFI DFH2/ VP 70 + VP 70, SD-2x12.5 GKFI DFH2/ VP 95 + VP 95, SD-2x12.5 GKFI DFH2/ VP 120 + VP 120, SD-2x12.5 DFH2IR/ VP 66 + VP 66, SD-2x12.5 DFH2IR/ VP 70 + VP 70, SD-2x12.5 DFH2IR/ VP 95 + VP 95, SD-2x12.5 DFH2IR/ VP 120 + VP 120.**

double sided cladded with 2x12.5 mm thick gypsum plasterboards Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, with the single framework made of double profiles CW or VP



The walls are built on the frameworks made of profiles e.g. Norgips **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100** or **VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** which were made of nominally  $0.55 \text{ mm} \pm 0.06 \text{ mm}$  or  $0.6 \text{ mm} \pm 0.06 \text{ mm}$  thick cold bent galvanized steel.

The **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100** or **VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** perimeter profiles are fixed to the ceiling, floor and side walls by means of mechanical connectors such as, e.g.: wall plugs, dowels, etc. The aforementioned mechanical connectors are placed every **80 cm**.

**3 mm** thick e.g. Norgips polyethylene sealing tape is placed between the perimeter steel profiles and the ceiling, floor and side walls. Double profiles **CW 50, CW 75 CW 100** or **VP 66, VP 70, VP 95, VP 120** are made from single profiles (respectively, **CW 50, CW 75 CW 100** or **VP 66, VP 70, VP 95, VP 120**) which were connected with one another at their webs by being screwed using screws  $\varnothing 3.5 \times 9.5 \text{ mm}$  with self-drilling endings placed at most every **40 cm**. These double profiles are positioned vertically and slid between the bottom and top shelves of, respectively, profiles **UW 50, UW 75, UW 100** or **HP 66, HP 70, HP 95, HP 120**. The axes of the adjacent double profiles (**CW 50, CW 75 CW 100** or **VP 66, VP 70, VP 95, VP 120**) are placed maximally every **60 cm** or every **62.5 cm**. The length of profiles **CW 50, CW 75 CW 100** or **VP 66, VP 70, VP 95, VP 120** should be **1.5 cm** less than the distance between the webs of the bottom and top profiles: **UW 50, UW 75, UW 100** or **HP 66, HP 70, HP 95, HP 120**.

The first layer of **12.5 mm** thick gypsum plasterboards **GKF type DF** or **GKFI type DFH2** or **Acoustic Super type DFH2IR** is fixed to the bottom **UW** or **HP** profiles and **CW** or **VP** profiles (posts) by means of screws  $\varnothing 3.5 \times 25 \text{ mm}$  placed maximally every **75 cm**. The second layer of **12.5 mm** thick gypsum plasterboards **GKF type DF** or **GKFI type DFH2** or **Acoustic Super type DFH2IR** is fixed to the bottom **UW** profiles and **CW** profiles (posts) by means of screws  $\varnothing 3.5 \times 35 \text{ mm}$  placed maximally every **25 cm**.

The boards are fixed in such a way that the vertical connections from two sides of the walls are not made on one and the same post in the first layer of the boards. The vertical connections are shifted in relation to one another by at least **30 cm**; usually they are shifted by **60 cm** or **62.5 cm**. The vertical connections in the second layer of the boards are shifted in relation to the vertical connections in the first layer of the boards by at least **30 cm**; usually they are shifted by **60 cm** or **62.5 cm**.

If there are horizontal connections on the surface of the wall, between the adjacent boards, they have to be shifted in relation to one another by at least **40 cm**. The horizontal connections in the

second layer of the boards are shifted in relation to the horizontal connections in the first layer of the boards by at least 40 cm and they are shifted in relation to the horizontal connections between the adjacent boards of the same layer by at least **40 cm**.

Screw heads, the vertical and horizontal connections between the **GKF type DF** boards or the **GKFI type DFH2** boards or the **Acoustic Super type DFH2IR** boards are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler**. The e.g. Norgips self-adhesive reinforcing tapes made of glass fibre or interfacing are applied at the connections between the boards. For final covering it is recommended to use ready mix jointing compound e.g. **Norgips Extra Finish**, **Norgips Start & Finish** or **Norgips Finish**.

For acoustic reasons, it is possible to fill the wall with any mineral wool of the A1 class of reaction to fire.

The fire resistance classification of the walls is provided in **Table 2 – see columns 7 and 9**, the maximum height of the walls is specified in **Table 2 – see columns 8 and 10**.

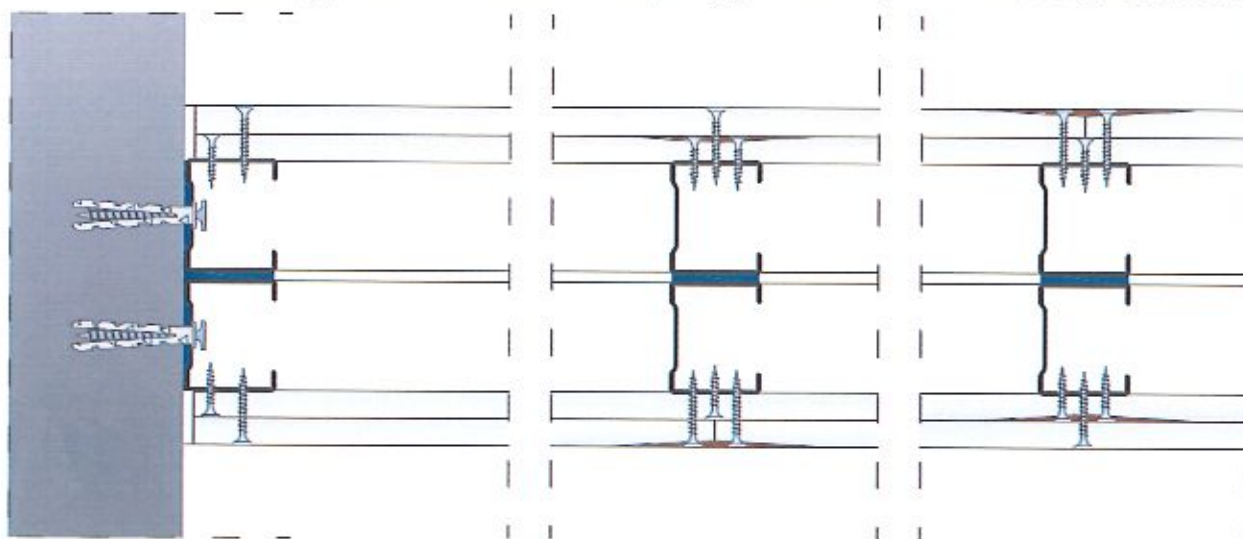
In places where there is the constructional dilatation of the building and when the length of a straight (without dilatation) section of the wall is more than 15 m one should apply dilatation.

Electric cables and wall boxes for electric installations can be installed in the wall (**see Figure 17**).

### 2.3 Partition walls

SD-2x12.5 GKF DF/2xCW 50, SD-2x12.5 GKF DF/2xCW 75, SD-2x12.5 GKF DF/2xCW 100, SD-2x12.5 GKFI DFH2/2xCW 50, SD-2x12.5 GKFI DFH2/2xCW 75, SD-2x12.5 GKFI DFH2/2xCW 100, SD-2x12.5 DFH2IR/2xCW 50, SD-2x12.5 DFH2IR/2xCW 75, SD-2x12.5 DFH2IR/2xCW 100, SD-2x12.5 GKF DF/2xVP 66, SD-2x12.5 GKF DF/2xVP 70, SD-2x12.5 GKF DF/2xVP 95, SD-2x12.5 GKF DF/2xVP 120, SD-2x12.5 GKFI DFH2/2xVP 66, SD-2x12.5 GKFI DFH2/2xVP 70, SD-2x12.5 GKFI DFH2/2xVP 95, SD-2x12.5 GKFI DFH2/2xVP 120, SD-2x12.5 DFH2IR/2xVP 66, SD-2x12.5 DFH2IR/2xVP 70, SD-2x12.5 DFH2IR/2xVP 95, SD-2x12.5 DFH2IR/2xVP 120.

double sided cladded with 2x12.5 mm thick gypsum plasterboards Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, with the double framework



The walls are built on the frameworks made of profiles e.g. Norgips **CW 50** and **UW 50**, **CW 75** and **UW 75**, **CW 100** and **UW 100** or **VP 66** and **HP 66**, **VP 70** and **HP 70**, **VP 95** and **HP 95**, **VP 120** and **HP 120** which were made of nominally **0.55 mm ± 0.06 mm** or **0.6 mm ± 0.06 mm** thick cold bent galvanized steel.

The **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100 or VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** perimeter profiles are fixed in two rows; the distance between the rows is 3-5 mm. The profiles are fixed to the ceiling, floor and side walls by means of mechanical connectors such as, e.g.: wall plugs, dowels, etc. The aforementioned mechanical connectors are placed every **80 cm**.

**3 mm** thick e.g. Norgips polyethylene sealing tape is placed between the perimeter steel profiles and the ceiling, floor and side walls. The same sealing tape is also placed between the corresponding **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100 or VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** profiles which are placed in the two rows of the construction.

Single profiles **CW 50, CW 75 CW 100 or VP 66, VP 70, VP 95, VP 120** are positioned vertically and slid between the bottom and top shelves of, respectively, profiles **UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120**. The axes of the adjacent CW profiles are placed maximally every **60 cm** or every **62.5 cm**. The length of profiles **CW 50, CW 75 CW 100 or VP 66, VP 70, VP 95, VP 120** should be 1.5 cm less than the distance between the webs of the bottom and top profiles: **UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120**.

The first layer of **12.5 mm thick** gypsum plasterboards **GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR** is fixed to the bottom **UW or HP** profiles and **CW or VP** profiles (posts) by means of screws **Ø3.5 x 25 mm** placed maximally every **75 cm**. The second layer of **12.5 mm thick** gypsum plasterboards **GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR** is fixed to the bottom **UW or HP** profiles and **CW or VP** profiles (posts) by means of system **Ø3.5 x 35 mm** placed maximally every **25 cm**.

The boards are fixed in such a way that the vertical connections from two sides of the walls are not made on one and the same post in the first layer of the boards. The vertical connections are shifted in relation to one another by at least **30 cm**; usually they are shifted by **60 cm** or **62.5 cm**. The vertical connections in the second layer of the boards are shifted in relation to the vertical connections in the first layer of the boards by at least 30 cm; usually they are shifted by **60 cm** or **62.5 cm**.

If there are horizontal connections on the surface of the wall, between the adjacent boards, they have to be shifted in relation to one another by at least **40 cm**. The horizontal connections in the second layer of the boards are shifted in relation to the horizontal connections in the first layer of the boards by at least **40 cm** and they are shifted in relation to the horizontal connections between the adjacent boards of the same layer by at least **40 cm**.

Screw heads, the vertical and horizontal connections between the **GKF type DF** boards or the **GKFI type DFH2** boards or the **Acoustic Super type DFH2IR** boards are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler**. The e.g. Norgips self-adhesive reinforcing tapes made of glass fibre or interfacing are applied at the connections between the boards. For final covering it is recommended to use ready mix jointing compound e.g. **Norgips Extra Finish, Norgips Start & Finish** or **Norgips Finish**.

For acoustic reasons, it is possible to fill the wall with any mineral wool of the A1 class of reaction to fire.

Constructional details regarding the partition walls are presented in **Figures 7 - 10**.

The fire resistance classification of the walls is provided in **Table 3 – see columns 7 and 9**, the maximum height of the walls is specified in **Table 3 – see columns 8 and 10**.

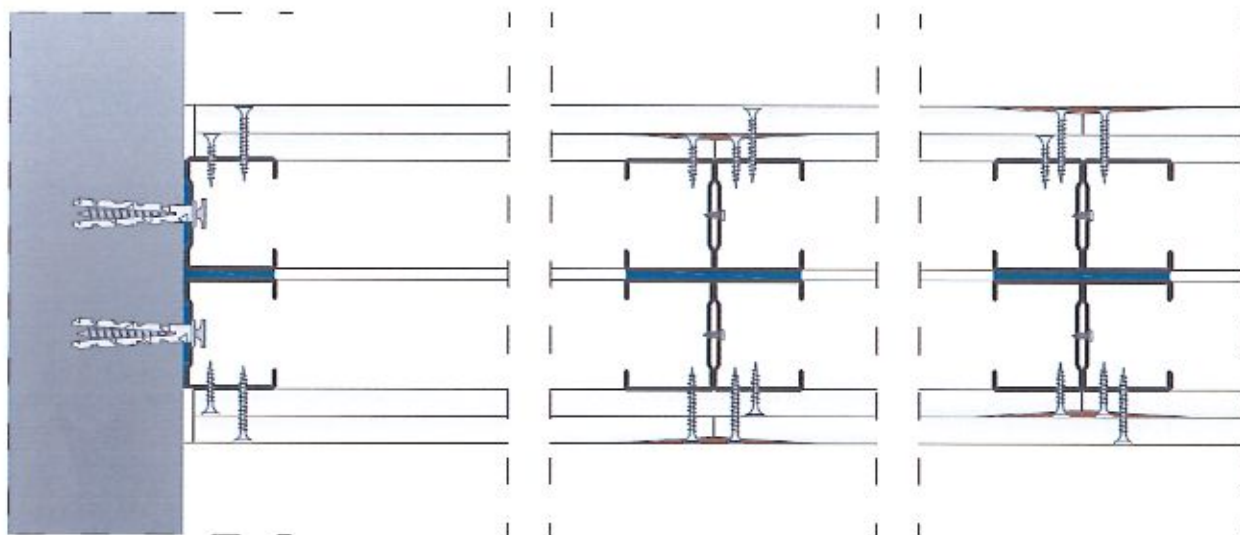
In places where there is the constructional dilatation of the building and when the length of a straight (without dilatation) section of the wall is more than 15 m one should apply dilatation (see **Figures 11 and 12**).

Electric cables and wall boxes for electric installations can be installed in the wall (see Figure 17).

## 2.4 Partition walls

SD-2x12.5 GKF DF/2xCW 50 + CW 50, SD-2x12.5 GKF DF/2xCW 75 + CW 75, SD-2x12.5 GKF DF/2xCW 100 + CW 100, SD-2x12.5 GKFI DFH2/2xCW 50 + CW 50, SD-2x12.5 GKFI DFH2/2xCW 75 + CW 75, SD-2x12.5 GKFI DFH2/2xCW 100 + CW 100, SD-2x12.5 DFH2IR/2xCW 50 + CW 50, SD-2x12.5 DFH2IR/2xCW 75 + CW 75, SD-2x12.5 DFH2IR/2xCW 100 + CW 100, SD-2x12.5 GKF DF/ 2xVP 66 + VP 66, SD-2x12.5 GKF DF/ 2xVP 70 + VP 70, SD-2x12.5 GKF DF/ 2xVP 95 + VP 95, SD-2x12.5 GKF DF/ 2xVP 120 + VP 120, SD-2x12.5 GKFI DFH2/ 2xVP 66 + VP 66, SD-2x12.5 GKFI DFH2/ 2xVP 70 + VP 70, SD-2x12.5 GKFI DFH2/ 2xVP 95 + VP 95, SD-2x12.5 GKFI DFH2/ 2xVP 120 + VP 120, SD-2x12.5 DFH2IR/ 2xVP 66 + VP 66, SD-2x12.5 DFH2IR/ 2xVP 70 + VP 70, SD-2x12.5 DFH2IR/ 2xVP 95 + VP 95, SD-2x12.5 DFH2IR/ 2xVP 120 + VP 120.

double sided clad with 2x12.5 mm thick gypsum plasterboards Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, with the double framework and double profiles CW or VP



The walls are built on the frameworks made of profiles e.g. Norgips **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100** or **VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** which were made of nominally **0.55 mm ± 0.06 mm** or **0.6 mm ± 0.06 mm** thick cold bent galvanized steel.

The **CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100** or **VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120** perimeter profiles are fixed in two rows; the distance between the rows is 3-5 mm. The profiles are fixed to the ceiling, floor and side walls by means of mechanical connectors such as, e.g.: wall plugs, dowels, etc. The aforementioned mechanical connectors are placed every **80 cm**.

**3 mm** thick e.g. Norgips polyethylene sealing tape is placed between the perimeter steel profiles and the ceiling, floor and side walls. Double profiles **CW 50, CW 75 CW 100** or **VP 66, VP 70, VP 95, VP 120** are made from single profiles (respectively, CW 50, CW 75 CW 100 or VP 66, VP 70, VP 95, VP 120) which were connected with one another at their webs by being screwed using

screws  $\varnothing 3.5 \times 9.5$  mm with self-drilling endings placed at most every 40 cm. These double profiles are positioned vertically and slid between the bottom and top shelves of, respectively, profiles **UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120**. The axes of the adjacent double profiles (**CW 50, CW 75 CW 100 or VP 66, VP 70, VP 95, VP 120**) are placed maximally every 60 cm or every 62.5 cm. The length of profiles **CW 50, CW 75 CW 100 or VP 66, VP 70, VP 95, VP 120** should be 1.5 cm less than the distance between the webs of the bottom and top profiles: **UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120**.

The first layer of **12.5 mm thick** gypsum plasterboards **GKF type DF** or **GKFI type DFH2** or **2 x 12.5 mm thick** gypsum plasterboards **Acoustic Super type DFH2IR** is fixed to the bottom **UW or HP** profiles and **CW or VP** profiles (posts) by means of screws  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm. The second layer of **12.5 mm thick** gypsum plasterboards **GKF type DF** or **GKFI type DFH2** or **2 x 12.5 mm thick** gypsum plasterboards **Acoustic Super type DFH2IR** is fixed to the bottom **UW or HP** profiles and **CW or VP** profiles (posts) by means of screws  $\varnothing 3.5 \times 35$  mm placed maximally every 25 cm.

The boards are fixed in such a way that the vertical connections from two sides of the walls are not made on one and the same post in the first layer of the boards. The vertical connections are shifted in relation to one another by at least 30 cm; usually they are shifted by 60 cm or 62.5 cm. The vertical connections in the second layer of the boards are shifted in relation to the vertical connections in the first layer of the boards by at least 30 cm; usually they are shifted by 60 cm or 62.5 cm.

If there are horizontal connections on the surface of the wall, between the adjacent boards, they have to be shifted in relation to one another by at least 40 cm. The horizontal connections in the second layer of the boards are shifted in relation to the horizontal connections in the first layer of the boards by at least 40 cm and they are shifted in relation to the horizontal connections between the adjacent boards of the same layer by at least 40 cm.

Screw heads, the vertical and horizontal connections between the **GKF type DF** boards or the **GKFI type DFH2** boards or the **Acoustic Super type DFH2IR** boards are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler**. The e.g. Norgips self-adhesive reinforcing tapes made of glass fibre or interfacing are applied at the connections between the boards. For final covering it is recommended to use ready mix jointing compound e.g. **Norgips Extra Finish, Norgips Start & Finish** or **Norgips Finish**.

For acoustic reasons, it is possible to fill the wall with any mineral wool of the A1 class of reaction to fire.

The fire resistance classification of the walls is provided in **Table 4 – see columns 7 and 9**, the maximum height of the walls is specified in **Table 4 – see columns 8 and 10**.

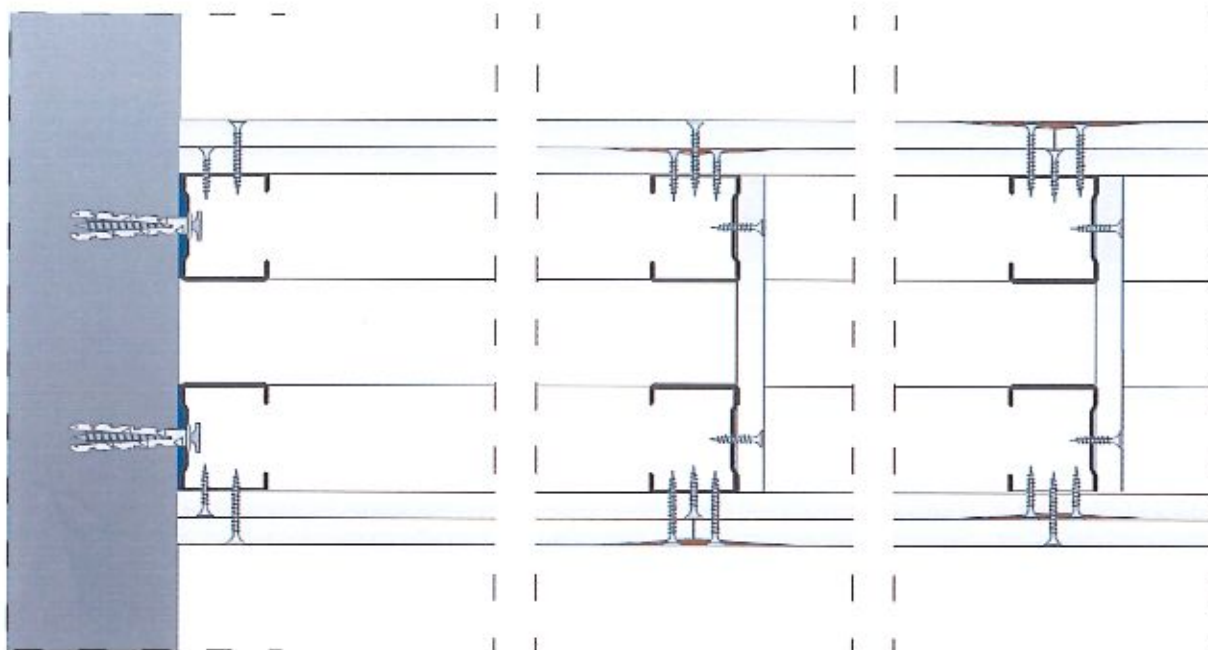
In places where there is the constructional dilatation of the building and when the length of a straight (without dilatation) section of the wall is more than 15 m one should apply dilatation.

Electric cables and wall boxes for electric installations can be installed in the wall (see **Figure 17**).

## 2.5 Partition walls

SDI-2x12.5 GKF DF/2xCW 50, SDI-2x12.5 GKF DF/2xCW 75, SDI-2x12.5 GKF DF/2xCW 100, SDI-2x12.5 GKFI DFH2/2xCW 50, SDI-2x12.5 GKFI DFH2/2xCW 75, SDI-2x12.5 GKFI DFH2/2xCW 100, SDI-2x12.5 DFH2IR/2xCW 50, SDI-2x12.5 DFH2IR/2xCW 75, SDI-2x12.5 DFH2IR/2xCW 100, SDI-2x12.5 GKF DF/2xVP 66, SDI-2x12.5 GKF DF/2xVP 70, SDI-2x12.5 GKF DF/2xVP 95, SDI-2x12.5 GKF DF/2xVP 120, SDI-2x12.5 GKFI DFH2/2xVP 66, SDI-2x12.5 GKFI DFH2/2xVP 70, SDI-2x12.5 GKFI DFH2/2xVP 95, SDI-2x12.5 GKFI DFH2/2xVP 120, SDI-2x12.5 DFH2IR/2xVP 66, SDI-2x12.5 DFH2IR/2xVP 70, SDI-2x12.5 DFH2IR/2xVP 95, SDI-2x12.5 DFH2IR/2xVP 120.

double sided cladded with 2x12.5 mm thick gypsum plasterboards Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, with the double framework



The walls are built on the frameworks made of profiles e.g. Norgips CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100 or VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120 which were made of nominally  $0.55 \text{ mm} \pm 0.06 \text{ mm}$  or  $0.6 \text{ mm} \pm 0.06 \text{ mm}$  thick cold bent galvanized steel.

The CW 50 and UW 50, CW 75 and UW 75, CW 100 and UW 100 or VP 66 and HP 66, VP 70 and HP 70, VP 95 and HP 95, VP 120 and HP 120 perimeter profiles are fixed in two rows; the distance between the rows is maximally 13 cm. The profiles are fixed to the ceiling, floor and side walls by means of mechanical connectors such as, e.g.: wall plugs, dowels, etc. The aforementioned mechanical connectors are placed every 80 cm.

3 mm thick e.g. Norgips polyethylene sealing tape is placed between the perimeter steel profiles and the ceiling, floor and side walls. Single profiles CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 are positioned vertically and slid between the bottom and top shelves of, respectively, profiles UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120.

The adjacent CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 profiles from both the rows are connected by means of crosspieces made of 12.5 mm thick gypsum plasterboards GKF type

**DF or GKFI type DFH2 or 12.5 mm thick gypsum plasterboards Acoustic Super type DFH2IR.** The minimum height of the crosspieces cannot be less than 30 cm. The axes of the adjacent crosspieces are placed in the maximum distance of **60 cm or 62.5 cm**. The length of profiles **CW 50, CW 75 CW 100 or VP 66, VP 70, VP 95, VP 120** should be 1.5 cm less than the distance between the webs of the bottom and top profiles: **UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120**.

The first layer of **12.5 mm thick gypsum plasterboards GKF type DF or GKFI type DFH2 or 12.5 mm thick gypsum plasterboards Acoustic Super type DFH2IR** is fixed to the bottom **UW or HP** profiles and **CW or VP** profiles (posts) by means of screws **Ø3.5 x 25 mm** placed maximally every **75 cm**. The second layer of **12.5 mm thick gypsum plasterboards GKF type DF or GKFI type DFH2 or 12.5 mm thick gypsum plasterboards Acoustic Super type DFH2IR** is fixed to the bottom **UW or HP** profiles and **CW or VP** profiles (posts) by means of screws **Ø3.5 x 35 mm** placed maximally every **25 cm**.

The boards are fixed in such a way that the vertical connections from two sides of the walls are not made on one and the same post in the first layer of the boards. The vertical connections are shifted in relation to one another by at least **30 cm**; usually they are shifted by **60 cm or 62.5 cm**. The vertical connections in the second layer of the boards are shifted in relation to the vertical connections in the first layer of the boards by at least **30 cm**; usually they are shifted by **60 cm or 62.5 cm**.

If there are horizontal connections on the surface of the wall, between the adjacent boards, they have to be shifted in relation to one another by at least **40 cm**. The horizontal connections in the second layer of the boards are shifted in relation to the horizontal connections in the first layer of the boards by at least **40 cm** and they are shifted in relation to the horizontal connections between the adjacent boards of the same layer by at least **40 cm**.

Screw heads, the vertical and horizontal connections between the **GKF type DF** boards or the **GKFI type DFH2** boards or the **Acoustic Super type DFH2IR** boards are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler**. The e.g. Norgips self-adhesive reinforcing tapes made of glass fibre or interfacing are applied at the connections between the boards. For final covering it is recommended to use ready mix jointing compound e.g. **Norgips Extra Finish, Norgips Start & Finish** or **Norgips Finish**.

For acoustic reasons, it is possible to fill the wall with any mineral wool of the A1 class of reaction to fire.

Constructional details regarding the partition walls are presented in **Figures 13 - 16**.

The fire resistance classification of the walls is provided in **Table 5 – see columns 7 and 9**, the maximum height of the walls is specified in **Table 5 – see columns 8 and 10**.

In places where there is the constructional dilatation of the building and when the length of a straight (without dilatation) section of the wall is more than 15 m one should apply dilatation.

Electric cables and wall boxes for electric installations can be installed in the wall (see **Figure 17**).

### 3. Fire resistance tests of the non-loadbearing partition wall with the cladding made of gypsum plasterboards manufactured by Norgips Sp. z o.o.

A fire resistance test of the Norgips non-loadbearing partition wall, double sided cladded with 2 x 12.5 mm thick gypsum plasterboards Norgips S GKF type DF, with the framework made of system profiles Norgips CW 50 and UW 50, without filling was carried out by the Fire Tests Laboratory of the Building Research Institute (Instytut Techniki Budowlanej).

Test report: LP01-6041/15/R22NP [1.8].

### 4. Fire resistance classification of the non-loadbearing partition walls

Based on the analysis of the fire resistance test results indicated in item 3, the following products:

non-loadbearing partition walls with the cladding made of gypsum plasterboards manufactured by Norgips Sp. z o.o.

prepared in accordance with the technical description presented in item 2, are classified:

- in accordance with standard PN-EN 13501-2:2016-07 [1.3] as belonging to the fire resistance classes indicated in Tables 1 ÷ 8, column 8, by the maximum heights specified in Tables 1 ÷ 8, column 9.
- in accordance with the criteria presented in standard PN-EN 13501-2:2016-07 [1.3] as belonging to the fire resistance classes indicated in Tables 1 ÷ 8, column 10, by the maximum heights specified in Tables 1 ÷ 8, column 11.

### 5. Non-loadbearing partition walls with the cladding made of gypsum plasterboards manufactured by Norgips Sp. z o.o. used as separation from fire

Non-loadbearing partition walls prepared in accordance with the technical description presented in item 2 can be used as separation from fire meeting the REI fire resistance criteria if the following conditions are met:

- the walls are fixed to or placed on the construction meeting the criteria for a fire resistance class equal to or higher than the fire resistance class (EI) of the wall,
- the walls are not subjected to the mechanical load generated by the construction of the building,
- the walls are fixed to the elements of the building in accordance with the building project.

### 6. Validity

The classification presented in item 4 is valid until 31.12.2025 on the condition that there are no changes in the construction or materials of the classified products.

Annex 1 – Drawings presenting the Norgips non-loadbearing partition walls, with the cladding made of gypsum plasterboards Norgips GKF type DF, Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR

Annex 2 – Tables 1 - 8 presenting the technical data of the Norgips non-loadbearing partition walls, with the cladding made of gypsum plasterboards Norgips GKF type DF, Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR

## **Classification No. LBO – 060 – KZ/20E**

### **Annex 1**

Drawings presenting the Norgips non-loadbearing partition walls, with the cladding made of gypsum plasterboards Norgips GKF type DF, Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR

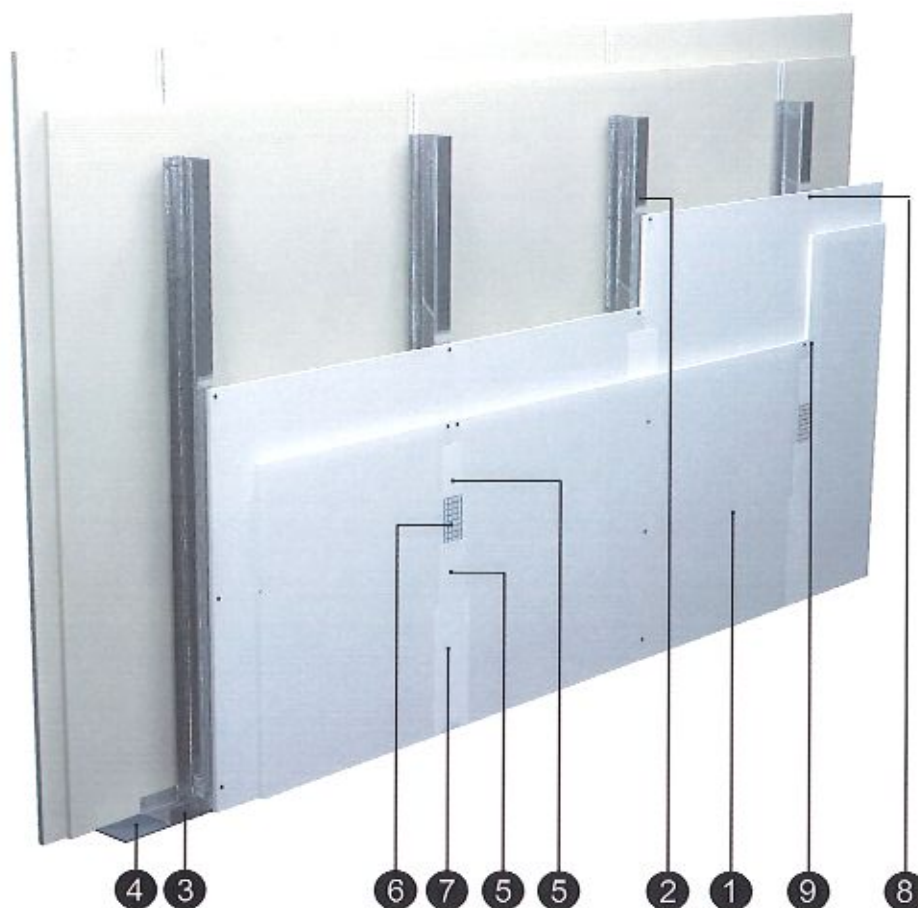


Figure 1 View of the wall

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
3. Profile e.g. Norgips UW or HP made of at least 0.55 mm thick sheet
4. Sealing tape e.g. Norgips
5. Gypsum filler e.g. Norgips Start or Norgips Super Filler
6. Self-adhesive reinforcing tape made of glass fibre or interfacing
7. Jointing compounds e.g. Norgips Extra Finish, Norgips Start & Finish or Norgips Finish
8. Screw e.g. Norgips  $\Phi 3.5 \times 25$  mm placed maximally every 75 cm
9. Screw e.g. Norgips  $\Phi 3.5 \times 35$  mm placed maximally every 25 cm

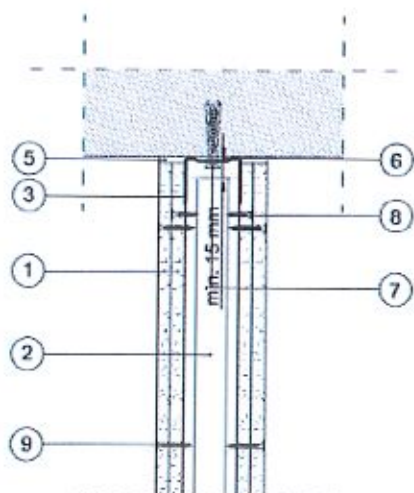


Figure 2 Vertical section, top connection

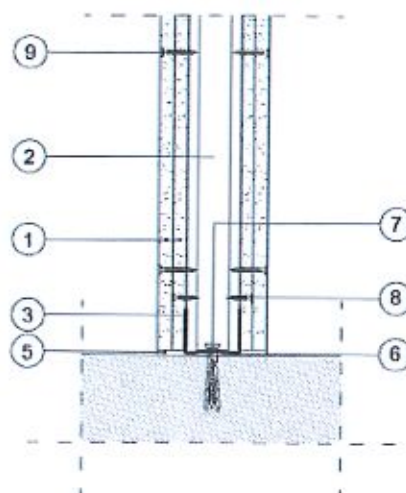


Figure 3 Vertical section, bottom connection

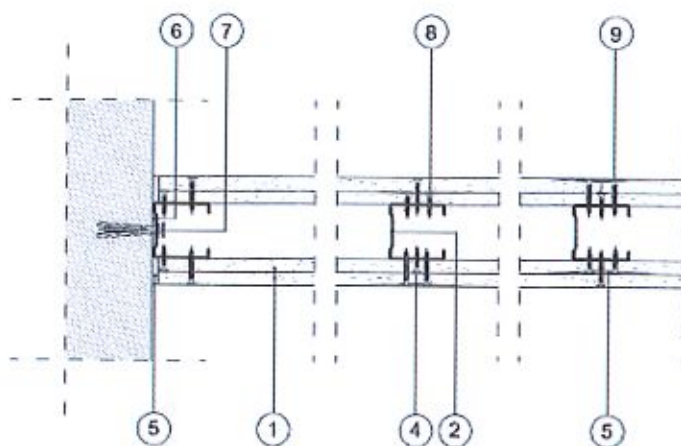


Figure 4 Horizontal section

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
3. Profile e.g. Norgips UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120 made of at least 0.55 mm thick sheet
4. Gypsum filler e.g. Norgips Start or Norgips Super Filler + self-adhesive reinforcing tape made of glass fibre or interfacing
5. Gypsum filler e.g. Norgips Start or Norgips Super Filler
6. Sealing tape e.g. Norgips, width: 50 mm/75 mm/100 mm
7. Mechanical connector, e.g. wall plug, dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
8. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm
9. Screw e.g. Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 25 cm

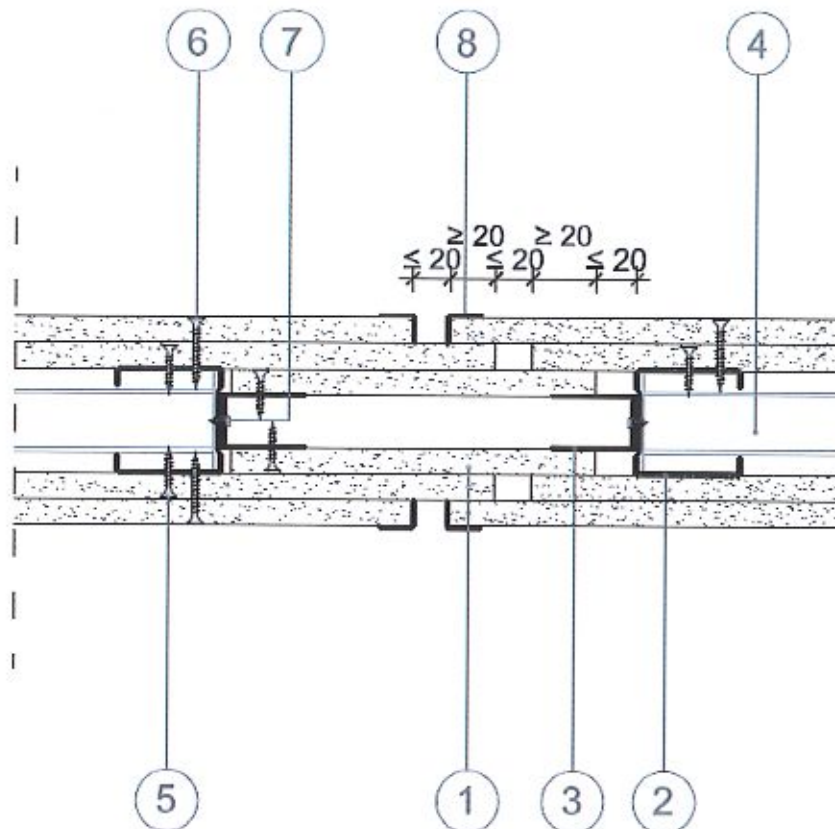


Figure 5 Expansion joint

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm
2. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet
3. Angle elements 2 x L 25 x 50/2 x L 50 x 50/2 x L 75 x 50 made of at least 0.55 mm thick sheet screwed to profiles CW 50/CW 75/CW 100 by means of screws with self-drilling endings Ø3.5 x 9.5 mm placed maximally every 40 cm
4. Profile e.g. Norgips UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120 made of at least 0.55 mm thick sheet
5. Screw e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
6. Screw e.g. Norgips Ø3.5 x 35 mm placed maximally every 25 cm
7. Screw e.g. Norgips with a self-drilling ending, Ø3.5 x 9.5 mm, placed maximally every 40 cm
8. Corner for gypsum plasterboards

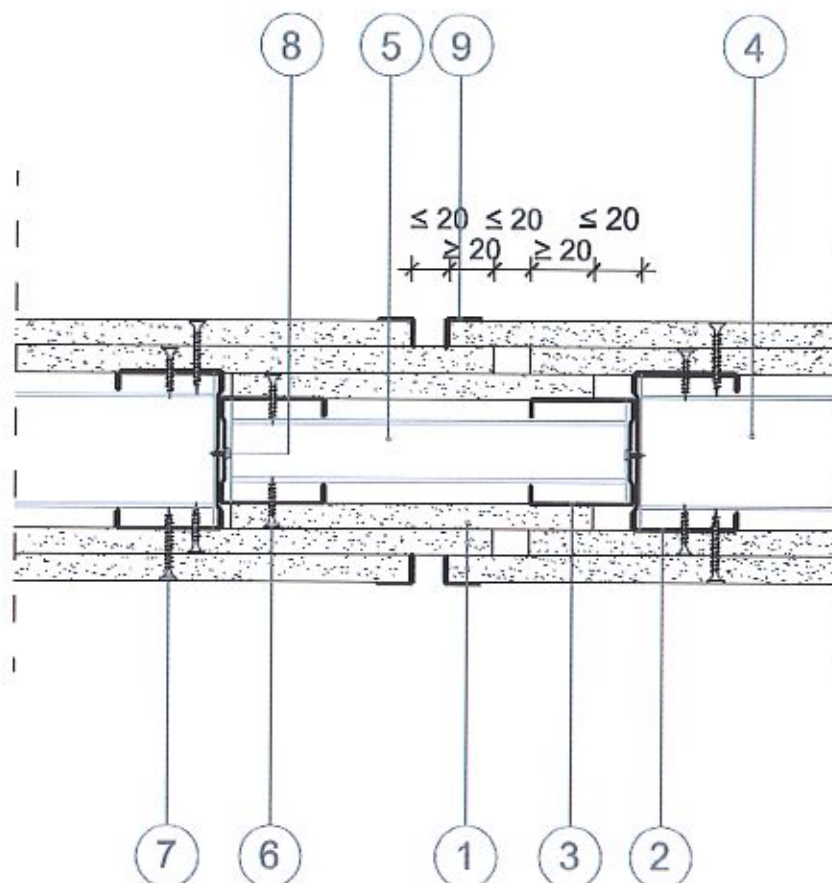


Figure 6 Expansion joint

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm
2. Profile e.g. Norgips CW 75 or CW 100 or VP 95 or VP 120 made of at least 0.55 mm thick sheet
3. Profile e.g. Norgips CW 50 or CW 75 or VP 70 or VP 95 made of at least 0.55 mm thick sheet
4. Profile e.g. Norgips UW 75 or UW 100 or HP 95 or HP 120 made of at least 0.55 mm thick sheet
5. Profile e.g. Norgips UW 50 or UW 75 or HP 70 or HP 95 made of at least 0.55 mm thick sheet
6. Screw Norgips  $\Phi 3.5 \times 25$  mm placed maximally every 75 cm
7. Screw Norgips  $\Phi 3.5 \times 35$  mm placed maximally every 25 cm
8. Screw Norgips with a self-drilling ending,  $\Phi 3.5 \times 9.5$  mm, placed maximally every 40 cm
9. Corner for gypsum plasterboards

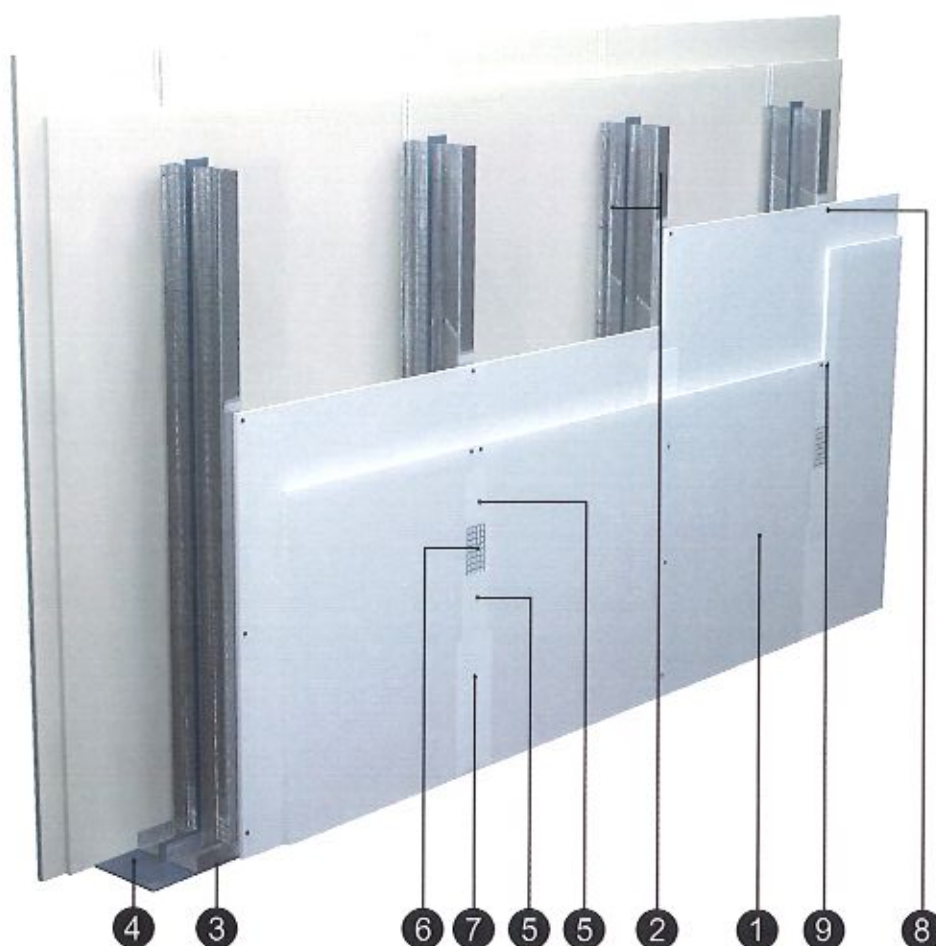


Figure 7 View of the wall

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profiles Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, fixed in two rows and placed maximally every 60 cm or 62.5 cm
3. Profiles Norgips UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120 made of at least 0.55 mm thick sheet, fixed in two rows
4. Sealing tape Norgips, width: 50 mm/75 mm/100 mm
5. Gypsum filler Norgips Start or Norgips Super Filler
6. Self-adhesive reinforcing tape made of glass fibre or interfacing
7. Jointing compounds Norgips Extra Finish, Norgips Start & Finish or Norgips Finish
8. Screw Norgips  $\Phi 3.5 \times 25$  mm placed maximally every 75 cm
9. Screw Norgips  $\Phi 3.5 \times 35$  mm placed maximally every 25 cm

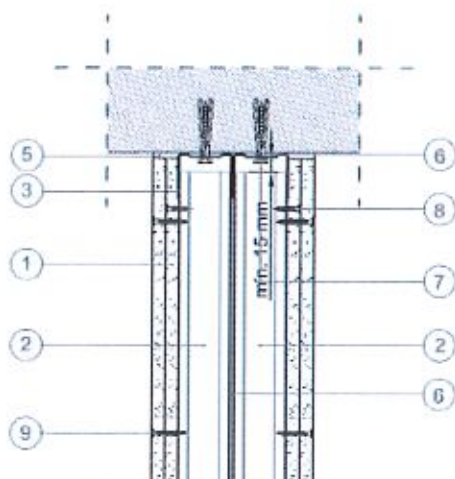


Figure 8 Vertical section, top connection

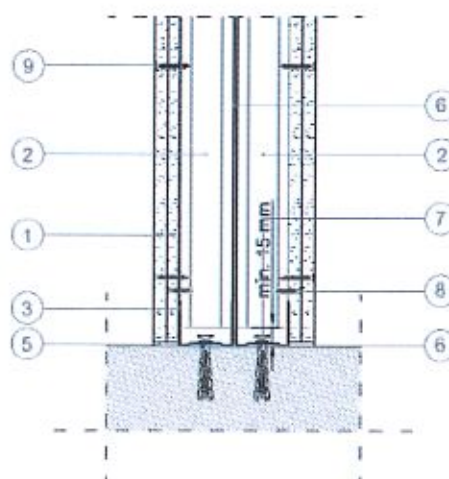


Figure 9 Vertical section, bottom connection

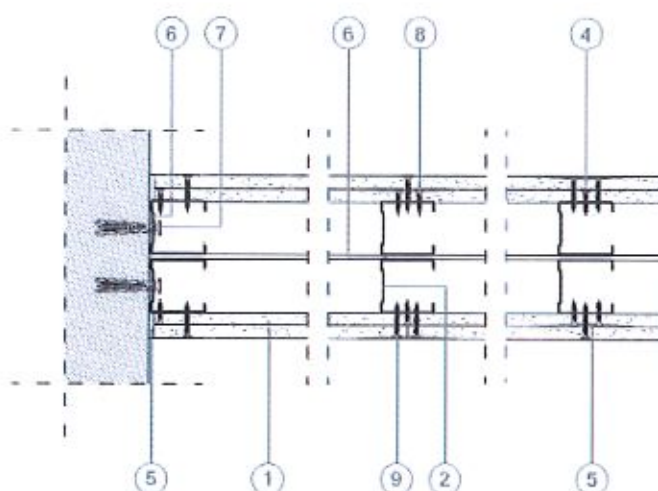


Figure 10 Horizontal section

where:

1. Gypsum plasterboard Norgips GKF type DF or GKF I type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profile Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
3. Profile Norgips UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120 made of at least 0.55 mm thick sheet
4. Gypsum putty Norgips Start or Norgips Super Filler + self-adhesive reinforcing tape made of glass fibre or interfacing
5. Gypsum filler Norgips Start or Norgips Super Filler
6. Sealing tape Norgips, width: 50 mm/75 mm/100 mm
7. Mechanical connector, e.g. wall plug, dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
8. Screw Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm
9. Screw Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 25 cm

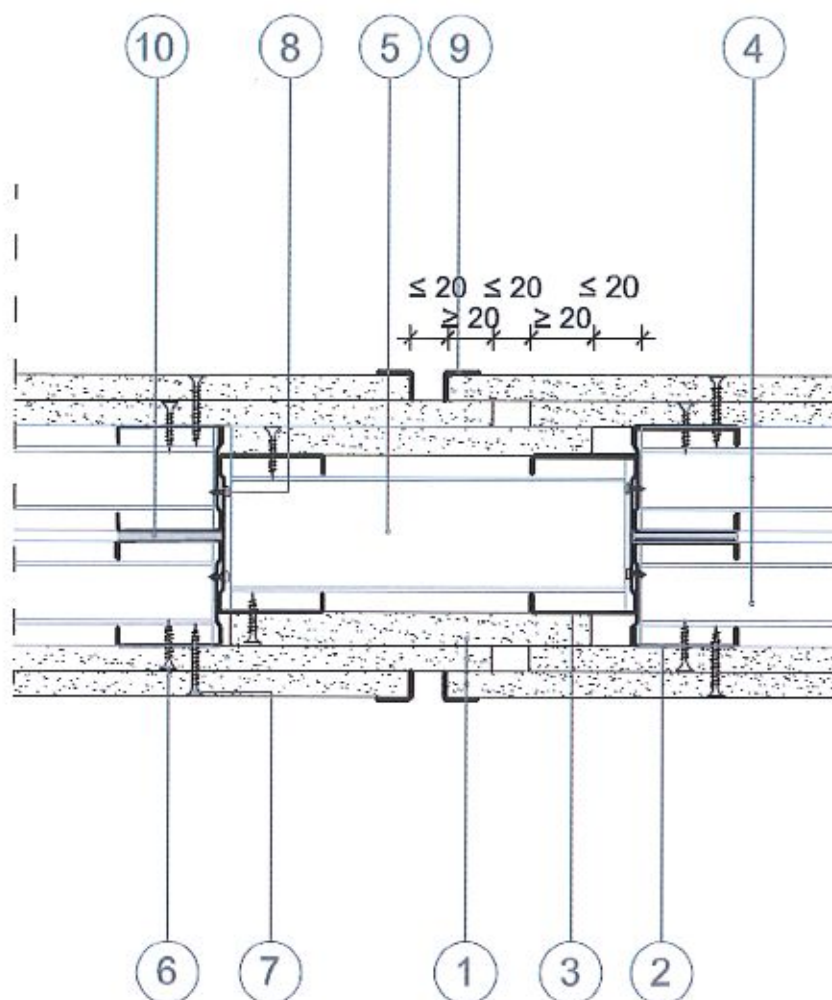


Figure 11 Expansion joint

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm
2. Profile e.g. Norgips CW 50 or VP 66 made of at least 0.55 mm thick sheet
3. Profile e.g. Norgips CW 75 or VP 95 made of at least 0.55 mm thick sheet
4. Profile e.g. Norgips UW 50 or HP 66 made of at least 0.55 mm thick sheet
5. Profile e.g. Norgips UW 75 or HP 95 made of at least 0.55 mm thick sheet
6. Screw e.g. Norgips  $\Phi 3.5 \times 25$  mm placed maximally every 75 cm
7. Screw e.g. Norgips  $\Phi 3.5 \times 35$  mm placed maximally every 25 cm
8. Screw e.g. Norgips with a self-drilling ending,  $\Phi 3.5 \times 9.5$  mm, placed maximally every 40 cm
9. Corner for gypsum plasterboards
10. Sealing tape e.g. Norgips, width: 50 mm

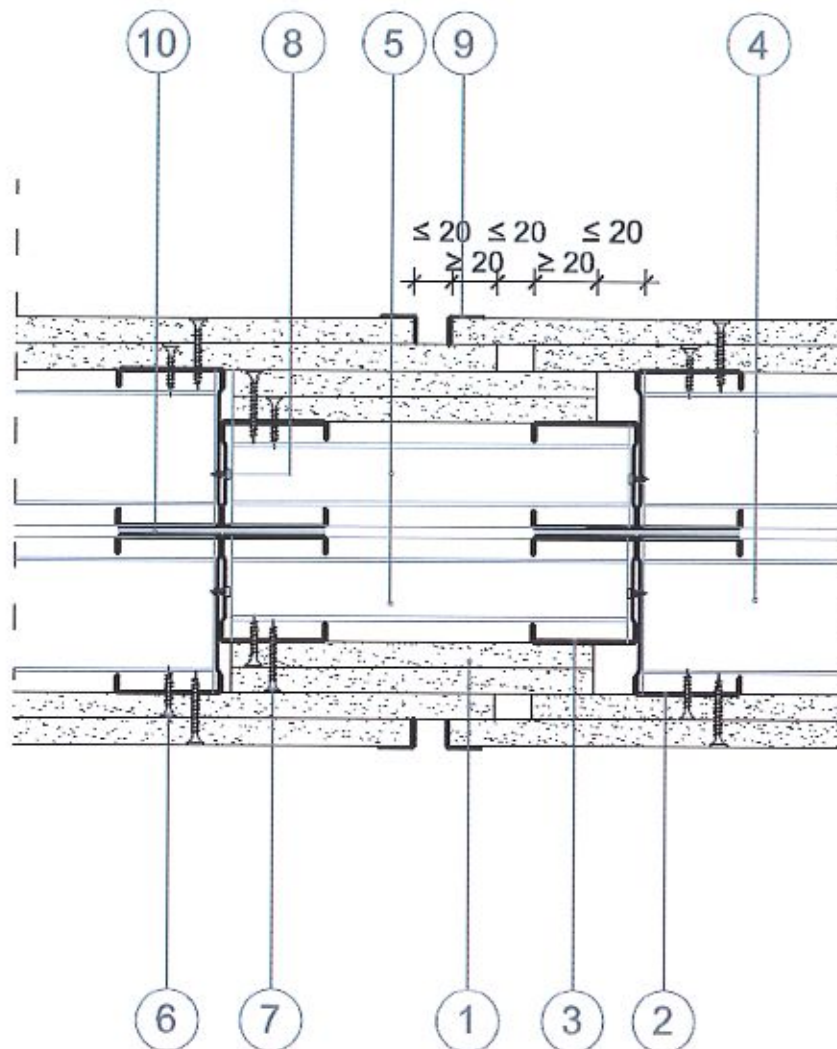


Figure 12 Expansion joint

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm
2. Profile e.g. Norgips CW 75 or CW 100 or VP 95 or VP 120 made of at least 0.55 mm thick sheet
3. Profile e.g. Norgips CW 50 or CW 75 or VP 70 or VP 95 made of at least 0.55 mm thick sheet
4. Profile e.g. Norgips UW 75 or UW 100 or HP 95 or HP 120 made of at least 0.55 mm thick sheet
5. Profile e.g. Norgips UW 50 or UW 75 or HP 70 or HP 95 made of at least 0.55 mm thick sheet
6. Screw e.g. Norgips  $\Phi 3.5 \times 25$  mm placed maximally every 75 cm
7. Screw e.g. Norgips  $\Phi 3.5 \times 35$  mm placed maximally every 25 cm
8. Screw e.g. Norgips with a self-drilling ending,  $\Phi 3.5 \times 9.5$  mm, placed maximally every 40 cm
9. Corner for gypsum plasterboards
10. Sealing tape Norgips, width: 50 mm

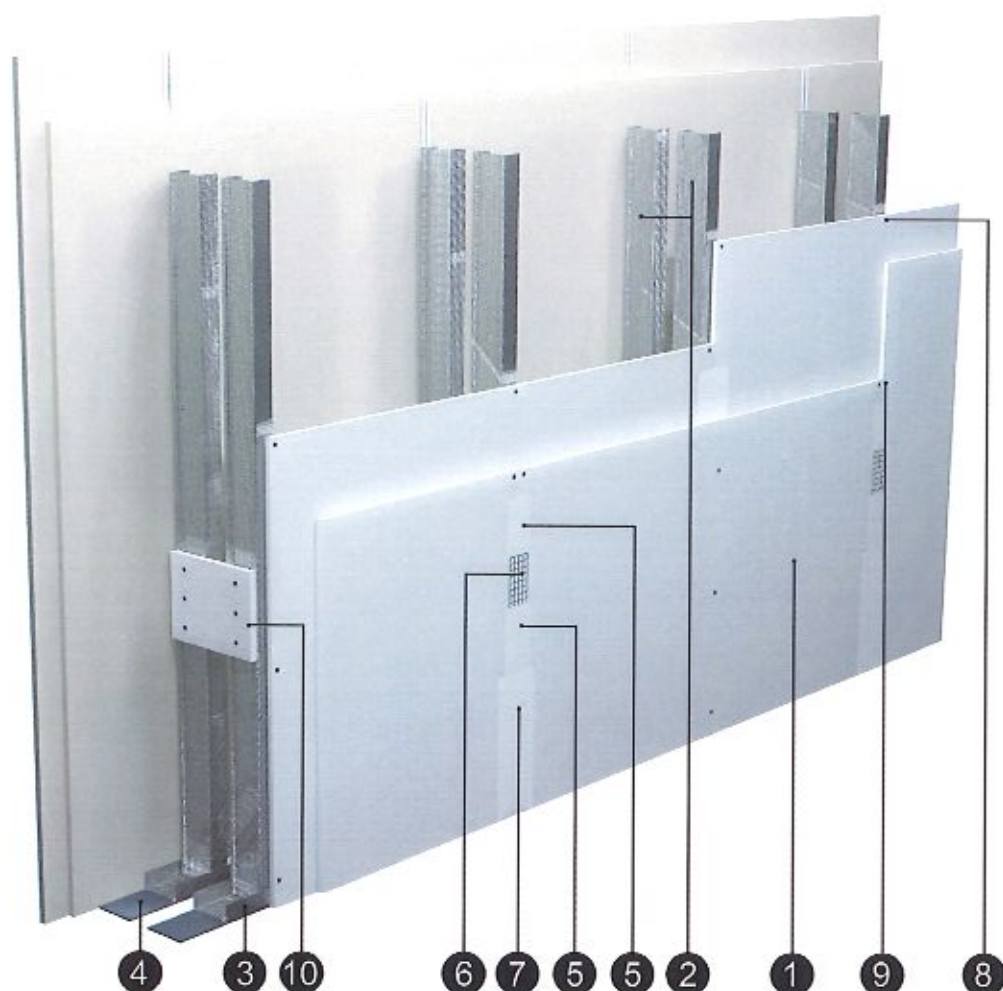


Figure 13 View of the wall

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profiles e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, fixed in two rows and placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120 made of at least 0.55 mm thick sheet, fixed in two rows
4. Sealing tape e.g. Norgips
5. Gypsum filler e.g. Norgips Start or Norgips Super Filler
6. Self-adhesive reinforcing tape made of glass fibre or interfacing
7. Jointing compounds e.g. Norgips Extra Finish, Norgips Start & Finish or Norgips Finish
8. Screw e.g. Norgips  $\Phi 3.5 \times 25$  mm placed maximally every 75 cm
9. Screw e.g. Norgips  $\Phi 3.5 \times 35$  mm placed maximally every 25 cm
10. Crosspiece made of gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm

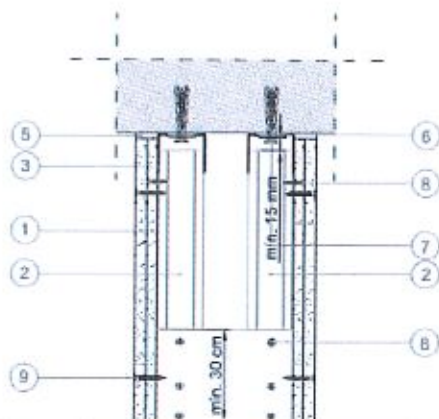


Figure 14 Vertical section, top connection

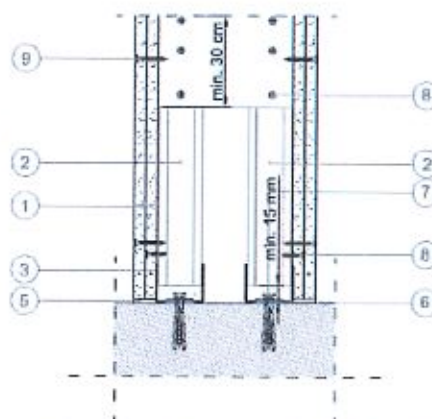


Figure 15 Vertical section, bottom connection

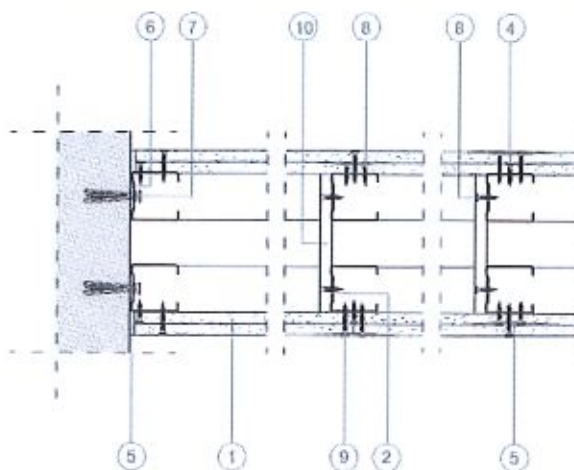
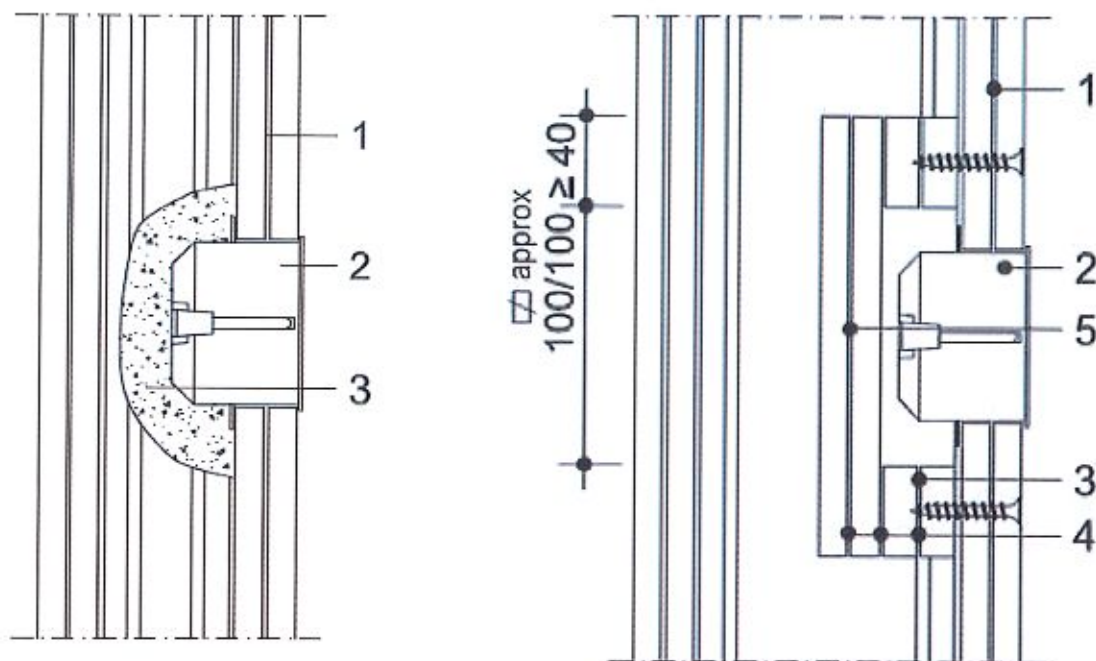


Figure 16 Horizontal section

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
3. Profile Norgips e.g. UW 50, UW 75, UW 100 or HP 66, HP 70, HP 95, HP 120 made of at least 0.55 mm thick sheet
4. Gypsum filler e.g. Norgips Start or Norgips Super Filler + self-adhesive reinforcing tape made of glass fibre or interfacing
5. Gypsum filler e.g. Norgips Start or Norgips Super Filler
6. Sealing tape e.g. Norgips
7. Mechanical connector, e.g. wall plug, dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
8. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm
9. Screw e.g. Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 25 cm
10. Crosspiece made of gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm

# Installation of wall boxes for electric installations



Protection by means of gypsum putty

Protection by means of the encasing made of  
gypsum plasterboard

Figure 17 Horizontal section. Ways of installing wall boxes for electric installations in the walls

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Wall box for electric installations
3. Gypsum filler e.g. Norgips Start or Norgips Super Filler
4. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm
5. Gypsum filler e.g. Norgips Start or Norgips Super Filler

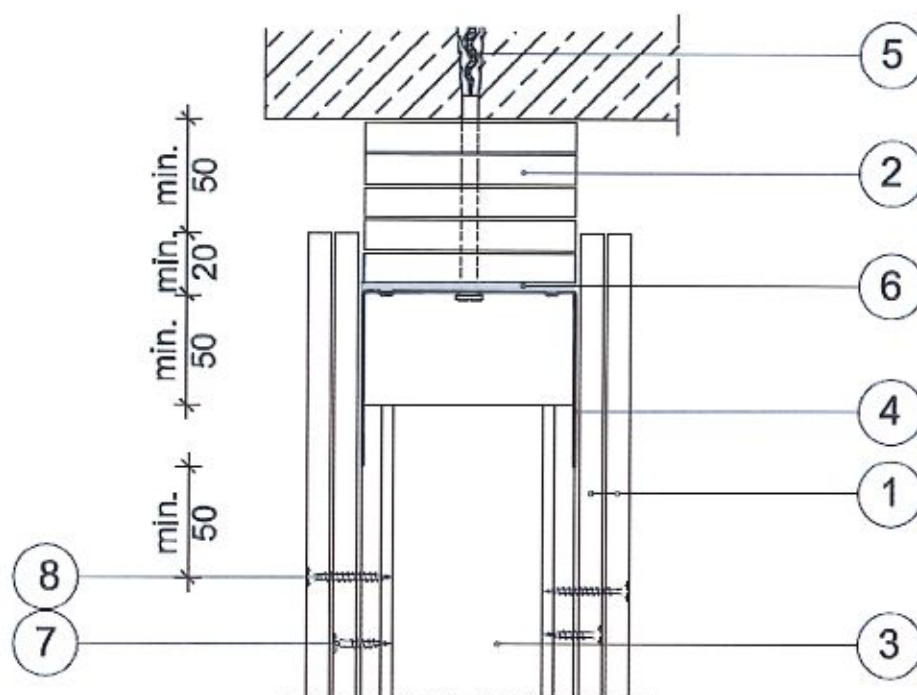


Figure 18 Vertical section. Telescopic connection of the wall, for the deflection of the ceiling up to 50 mm and the ceiling not propagating fire

where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Spacers made of gypsum plasterboards Norgips GKF type DF or GKFI type DFH2, thickness: 15 mm
3. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
4. Profile e.g. Norgips U 50x80, U 66x80, U 70x80, U 75x 80, U 95x80, U 100x80, U 120x80 or steel angle element 2xL 50x 80, 2xL 75x80/ 2xL 100x80 made of at least 1 mm thick sheet
5. Mechanical connector, e.g. wall plug, dowel at least Ø8 x 120 mm placed maximally every 80 cm
6. Sealing tape e.g. Norgips
7. Screw e.g. Norgips Φ3.5 x 25 mm placed maximally every 75 cm
8. Screw e.g. Norgips Φ3.5 x 35 mm placed maximally every 25 cm

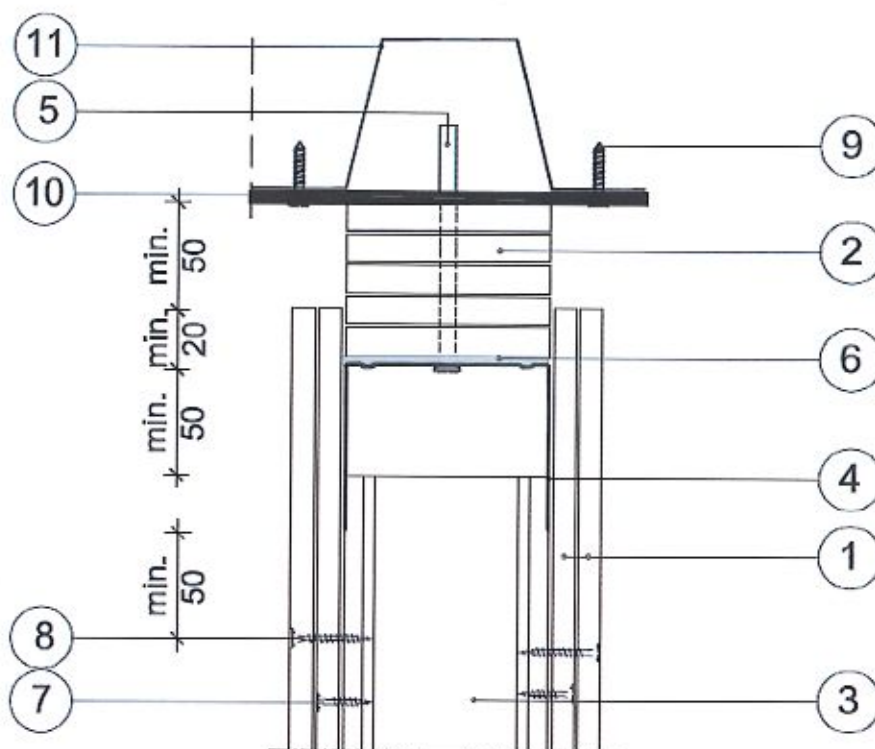
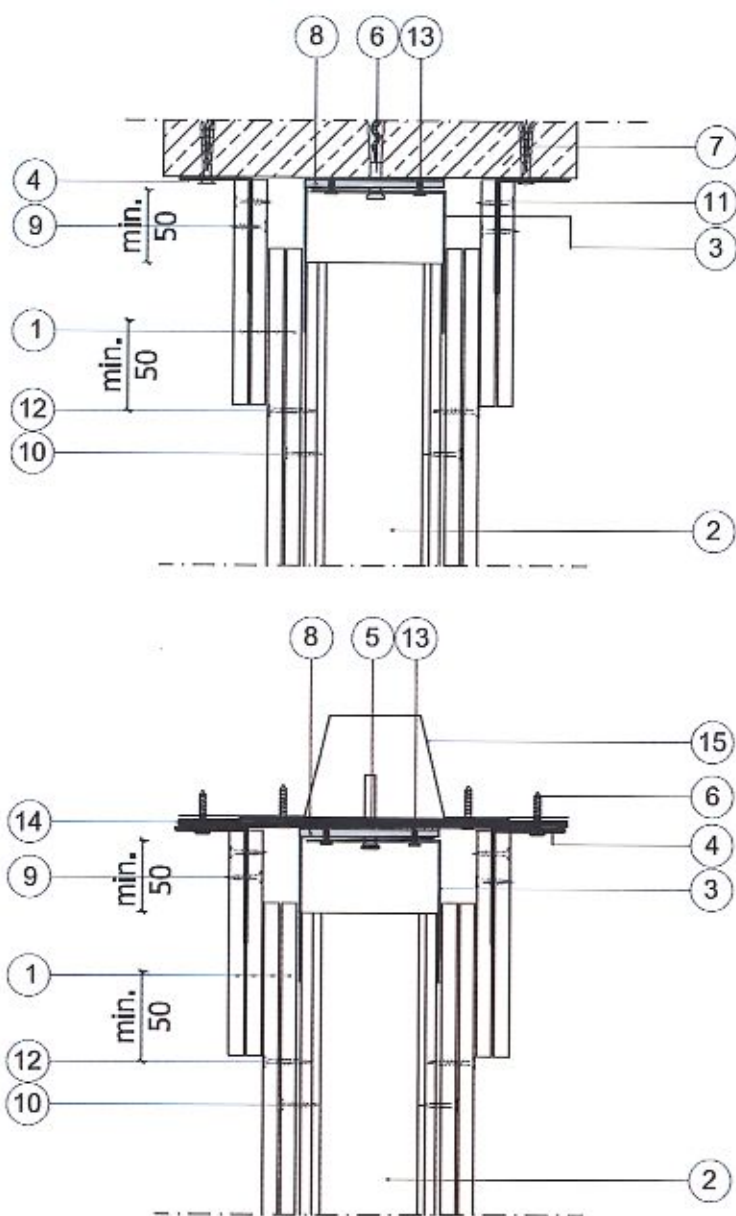


Figure 19 Vertical section. Telescopic connection of the wall, for the deflection of the roof up to 50 mm and the roof cladding not propagating fire

where:

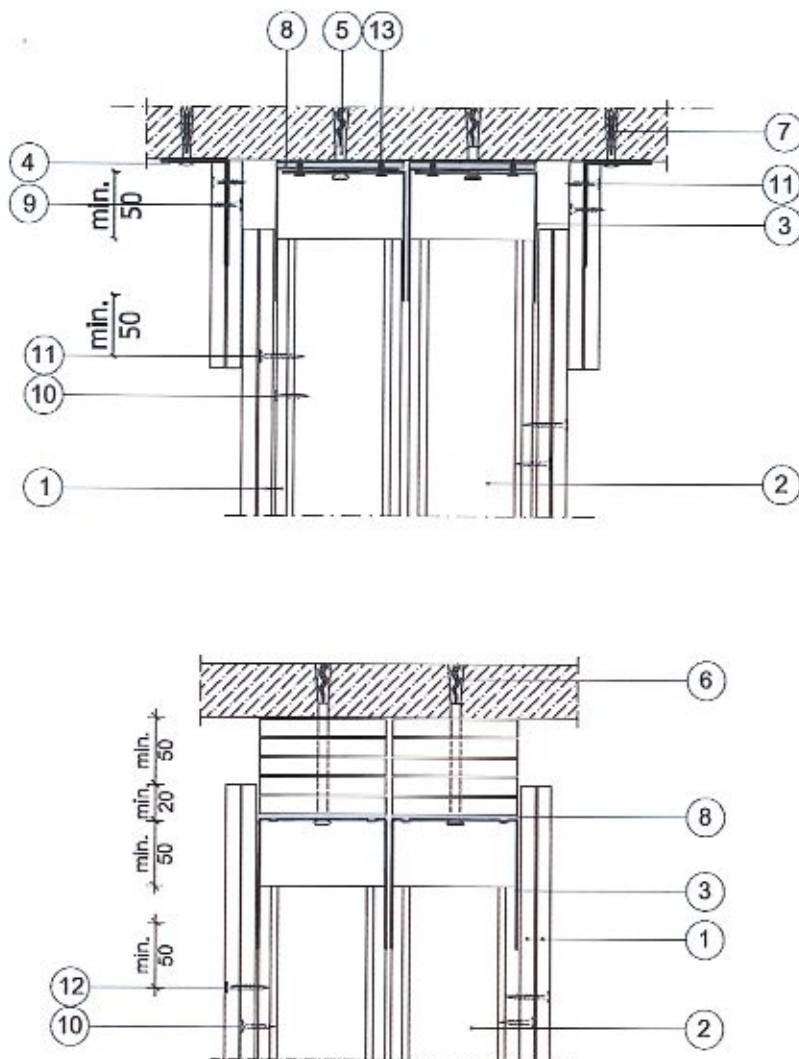
1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Spacers made of gypsum plasterboards Norgips GKF type DF or GKFI type DFH2, thickness: 15 mm
3. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
4. Profile e.g. Norgips U 50x80, U 66x80, U 70x80, U 75x 80, U 95x80, U 100x80, U 120x80 or steel angle element 2xL 50x 80, 2xL 75x80/ 2xL 100x80 made of at least 1 mm thick sheet
5. Mechanical connector, e.g. wall plug, dowel at least Ø8 x 120 mm placed maximally every 80 cm
6. Sealing tape e.g. Norgips
7. Screw e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
8. Screw e.g. Norgips Ø3.5 x 35 mm placed maximally every 25 cm
9. Mechanical connector, e.g. screw for sheet
10. Sheet strip, thickness: at least 2 mm
11. Trapezoidal sheet



where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
3. Profile e.g. Norgips U 50x80, U 66x80, U 70x80, U 75x 80, U 95x80, U 100x80, U 120x80 or steel angle element 2xL 50x 80, 2xL 75x80/ 2xL 100x80 made of at least 1 mm thick sheet
4. Steel angle element L 50 x 80 made of at least 1 mm thick sheet
5. Steel dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
6. Mechanical connector, e.g. screw for sheet
7. Mechanical connector, e.g. wall plug, dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
8. Sealing tape e.g. Norgips
9. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 50 cm
10. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm
11. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 25 cm
12. Screw e.g. Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 25 cm
13. Self-drilling screw e.g. Norgips  $\varnothing 3.5 \times 9.5$  mm, placed maximally every 40 cm
14. Steel sheet, thickness: at least 2 mm
15. Trapezoidal sheet

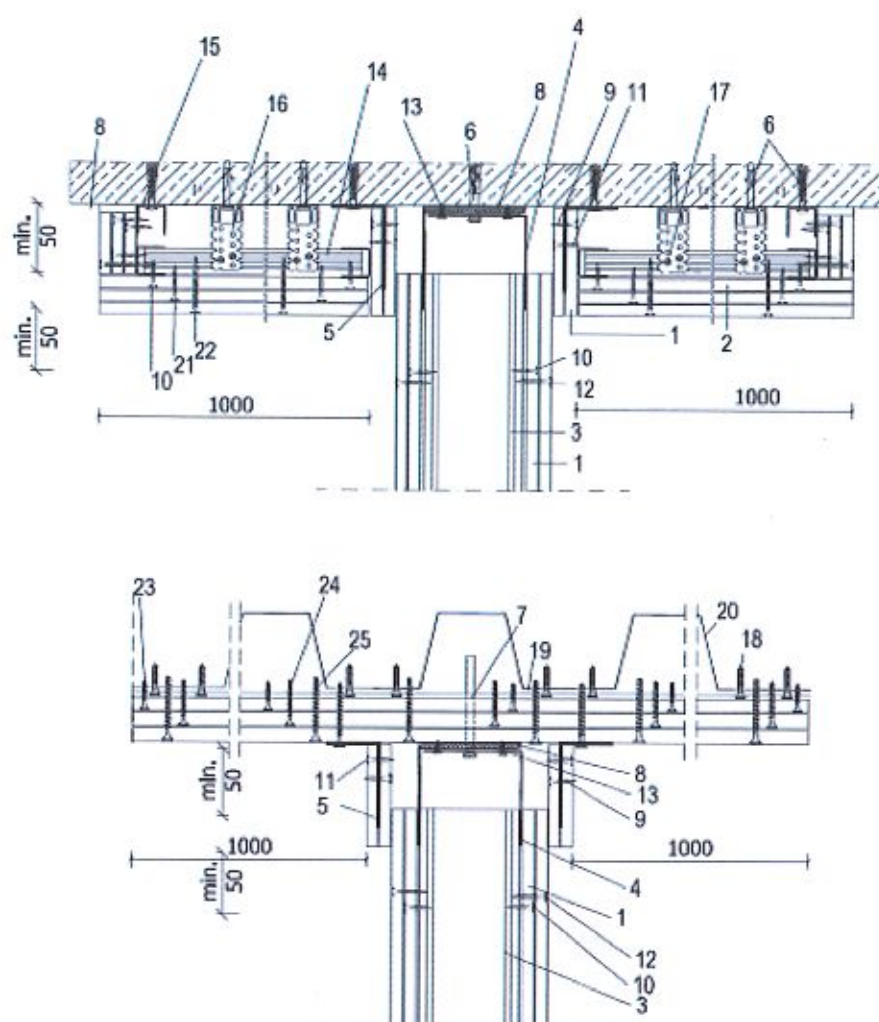
Figure 20 Vertical section. Telescopic connection of the wall, for the deflection of the ceiling or roof up to 50 mm and the ceiling or roof cladding not propagating fire



where:

1. Gypsum plasterboard Norgips GKF type DF or GKF type DFH2 or Acoustic Super type DFH2IR, thickness: 2 x 12.5 mm
2. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
3. Profile e.g. Norgips U 50x80, U 66x80, U 70x80, U 75x 80, U 95x80, U 100x80, U 120x80 or steel angle element 2xL 50x 80, 2xL 75x80/ 2xL 100x80 made of at least 1 mm thick sheet
4. Steel angle element L 50 x 80 made of at least 1 mm thick sheet
5. Steel dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
6. Mechanical connector, e.g. wall plug, dowel at least  $\varnothing 6 \times 60$  mm placed maximally every 80 cm
7. Mechanical connector, e.g. wall plug, dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
8. Sealing tape e.g. Norgips
9. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 50 cm
10. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm
11. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 25 cm
12. Screw e.g. Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 25 cm
13. Self-drilling screw e.g. Norgips  $\varnothing 3.5 \times 9.5$  mm, placed maximally every 40 cm

Figure 21 Vertical section. Telescopic connection of the wall, for the deflection of the ceiling or roof up to 50 mm and the ceiling or roof cladding not propagating fire



where:

1. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 12.5 mm
2. Gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR, thickness: 3 x 12.5 mm or, alternatively, Norgips GKF type DF or GKFI type DFH2, thickness: 2 x 15 mm
3. Profile e.g. Norgips CW 50, CW 75, CW 100 or VP 66, VP 70, VP 95, VP 120 made of at least 0.55 mm thick sheet, placed maximally every 60 cm or 62.5 cm
4. Profile e.g. Norgips U 50x80, U 66x80, U 70x80, U 75x 80, U 95x80, U 100x80, U 120x80 or steel angle element 2xL 50x 80, 2xL 75x80/ 2xL 100x80 made of at least 1 mm thick sheet
5. Steel angle element L 50 x 80 made of at least 1 mm thick sheet
6. Steel dowel at least  $\varnothing 6 \times 40$  mm placed maximally every 80 cm
7. Mechanical connector, e.g. wall plug, dowel at least  $\varnothing 8 \times 80$  mm placed maximally every 80 cm
8. Sealing tape e.g. Norgips

9. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 50 cm
10. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm
11. Screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 25 cm
12. Screw e.g. Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 25 cm
13. Screw e.g. Norgips  $\varnothing 3.5 \times 9.5$  mm placed maximally every 40 cm
14. Profile e.g. Norgips CD 60 made of at least 0.55 mm thick sheet
15. Profile e.g. Norgips UD 30 made of at least 0.55 mm thick sheet
16. Hanger e.g. Norgips ES or ES plus
17. Self-drilling screw e.g. Norgips  $\varnothing 3.5 \times 9.5$  mm
18. Mechanical connector, e.g. screw for sheet
19. Sheet strip, thickness: at least 2 mm
20. Trapezoidal sheet
21. Screw e.g. Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 50 cm
22. Screw e.g. Norgips  $\varnothing 3.5 \times 55$  mm placed maximally every 25 cm
23. Self-drilling screw e.g. Norgips  $\varnothing 3.5 \times 25$  mm placed maximally every 75 cm
24. Self-drilling screw e.g. Norgips  $\varnothing 3.5 \times 35$  mm placed maximally every 50 cm
25. Self-drilling screw e.g. Norgips  $\varnothing 3.5 \times 55$  mm placed maximally every 25 cm

**GRYFITLAB Sp. z o.o.**  
Zespół Laboratoriów  
Badawczych Gryfitlab  
ul. Prosta 2, Łozienica  
72-100 GOLENIÓW

Figure 22 Vertical section. Telescopic connection of the wall, for the deflection of the ceiling or roof up to 50 mm and the ceiling or roof cladding propagating fire with the double sided protection strip of the EI 60 class

## **Classification No. LBO – 060 – KZ/20E**

### **Annex 2**

Tables 1 - 8

Table 1

Technical details for the following types of the Norgips partition walls:

SD-2 x 12.5 GKF DF CW 50, SD-2 x 12.5 GKF DFH2 CW 50, SD-2 x 12.5 GKF DF CW 50+CW 50, SD-2 x 12.5 GKF DFH2 CW 50+CW 50, SD-2 x 12.5 GKF DFH2 CW 50+CW 50, SD-2 x 12.5 GKF DFH2 VP 66, SD-2 x 12.5 GKF DFH2 VP 66, SD-2 x 12.5 GKF DF VP 66+VP 66, SD-2 x 12.5 GKF DF VP 70, SD-2 x 12.5 GKF DFH2 VP 70, SD-2 x 12.5 GKF DF VP 66+VP 66, SD-2 x 12.5 GKF DFH2 VP 66+VP 66, SD-2 x 12.5 GKF DFH2 VP 70+VP 70, SD-2 x 12.5 GKF DFH2 VP 70+VP 70, SD-2 x 12.5 GKF DFH2 VP 70+VP 70, SD-2 x 12.5 GKF DFH2 VP 70+VP 70.

| Symbol of the Norgips wall       | Type of profiles | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |                                                  | Total thickness of the wall [mm] | Filling with mineral wool                                          | Fire resistance classification of the wall                         |                     |                       |                     |     |
|----------------------------------|------------------|-----------------------------------------------|---------------------------------------------------|--------------------------------------------------|----------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|---------------------|-----------------------|---------------------|-----|
|                                  |                  |                                               | Type/thickness [mm]                               | Minimum weight of the board [kg/m <sup>2</sup> ] |                                  |                                                                    | According to standard PN-EN 13501-2:2016-07                        |                     |                       |                     |     |
|                                  |                  |                                               |                                                   |                                                  |                                  |                                                                    | Fire resistance class                                              | Maximum height [cm] | Fire resistance class | Maximum height [cm] |     |
| 1                                | 2                | 3                                             | 4                                                 | 5                                                | 6                                | 7                                                                  | 8                                                                  | 9                   | 10                    | 11                  |     |
| SD-2x12.5 GKF DF CW 50           | CW 50            | 60/62.5                                       | DF<br>2x12.5                                      | 10.0                                             | 100                              | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                                             | 400                 | EI 120                | 420                 |     |
| SD-2x12.5 GKF DF VP 66           | VP 66            | 40/41.7                                       |                                                   |                                                  | 116                              |                                                                    |                                                                    | 400                 |                       | 480                 |     |
| SD-2x12.5 GKF DF VP 70           | VP 70            | 30/31.3                                       |                                                   |                                                  | 120                              |                                                                    |                                                                    | 400                 |                       | 550                 |     |
| SD-2x12.5 GKF DFH2 CW 50         | CW 50            | 60/62.5                                       | DFH2<br>2x12.5                                    | 10.0                                             | 100                              |                                                                    | EI 120                                                             | 400                 | 400                   | EI 120              | 420 |
| SD-2x12.5 GKF DFH2 VP 66         | VP 66            | 40/41.7                                       |                                                   |                                                  | 116                              |                                                                    |                                                                    | 400                 | 480                   |                     |     |
| SD-2x12.5 GKF DFH2 VP 70         | VP 70            | 30/31.3                                       |                                                   |                                                  | 120                              |                                                                    |                                                                    | 400                 | 550                   |                     |     |
| SD-2x12.5 DFH2IR CW 50           | CW 50            | 60/62.5                                       | DFH2IR<br>2x12.5                                  | 10.0                                             | 100                              |                                                                    | No filling or any mineral wool of the A1 class of reaction to fire | EI 120              | 400                   | EI 120              | 420 |
| SD-2x12.5 DFH2IR VP 66           | VP 66            | 40/41.7                                       |                                                   |                                                  | 116                              |                                                                    |                                                                    |                     | 400                   |                     | 480 |
| SD-2x12.5 DFH2IR VP 70           | VP 70            | 30/31.3                                       |                                                   |                                                  | 120                              |                                                                    |                                                                    |                     | 400                   |                     | 550 |
| SD-2x12.5 GKF DF CW 50+CW 50     | CW 50            | 60/62.5                                       | DF<br>2x12.5                                      | 10.0                                             | 100                              |                                                                    | EI 120                                                             | 400                 | 400                   | EI 120              | 480 |
| SD-2x12.5 GKF DF VP 66 + VP 66   | VP 66            | 40/41.7                                       |                                                   |                                                  | 116                              |                                                                    |                                                                    | 400                 | 560                   |                     |     |
| SD-2x12.5 GKF DF VP 70 + VP 70   | VP 70            | 30/31.3                                       |                                                   |                                                  | 120                              |                                                                    |                                                                    | 400                 | 580                   |                     |     |
| SD-2x12.5 GKF DFH2 CW 50+CW 50   | CW 50            | 60/62.5                                       | DFH2<br>2x12.5                                    | 10.0                                             | 100                              | EI 120                                                             | 400                                                                | 400                 | EI 120                | 480                 |     |
| SD-2x12.5 GKF DFH2 VP 66 + VP 66 | VP 66            | 40/41.7                                       |                                                   |                                                  | 116                              |                                                                    | 400                                                                | 560                 |                       |                     |     |
| SD-2x12.5 GKF DFH2 VP 70 + VP 70 | VP 70            | 30/31.3                                       |                                                   |                                                  | 120                              |                                                                    | 400                                                                | 580                 |                       |                     |     |
| SD-2x12.5 DFH2IR CW 50+CW 50     | CW 50            | 60/62.5                                       | DFH2IR<br>2x12.5                                  | 10.0                                             | 100                              | EI 120                                                             | 400                                                                | 400                 | EI 120                | 480                 |     |
| SD-2x12.5 DFH2IR VP 66 + VP 66   | VP 66            | 40/41.7                                       |                                                   |                                                  | 116                              |                                                                    | 400                                                                | 560                 |                       |                     |     |
| SD-2x12.5 DFH2IR VP 70 + VP 70   | VP 70            | 30/31.3                                       |                                                   |                                                  | 120                              |                                                                    | 400                                                                | 580                 |                       |                     |     |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.

|                                                          |                                       |                |
|----------------------------------------------------------|---------------------------------------|----------------|
| GRYFITLAB Spółka z o.o.<br>Group of Testing Laboratories | Classification No. LBO – 060 – KZ/20E | Page: 32 of 38 |
|----------------------------------------------------------|---------------------------------------|----------------|

Table 2

Technical details for the following types of the Norgips partition walls:

SD-2 x 12.5 GKF DF CW 75, SD-2 x 12.5 GKF DFH2 CW 75, SD-2 x 12.5 DFH2IR CW 75, SD-2 x 12.5 GKF DF CW 75+CW 75, SD-2 x 12.5 GKF DFH2 VP 95, SD-2 x 12.5 GKF DFH2 VP 95, SD-2 x 12.5 GKF DFH2 VP 95, SD-2 x 12.5 GKF DFH2 VP 95+VP 95, SD-2 x 12.5 GKF DFH2 VP 95+VP 95, SD-2 x 12.5 GKF DFH2 VP 95+VP 95.

| Symbol of the Norgips wall                                         | Type of profiles | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |                                     | Total thickness of the wall [mm] | Filling with mineral wool                                          | Fire resistance classification of the wall  |                     |                                                             |                       |
|--------------------------------------------------------------------|------------------|-----------------------------------------------|---------------------------------------------------|-------------------------------------|----------------------------------|--------------------------------------------------------------------|---------------------------------------------|---------------------|-------------------------------------------------------------|-----------------------|
|                                                                    |                  |                                               | Type/thickness [mm]                               | Minimum weight of the board [kg/m²] |                                  |                                                                    | According to standard PN-EN 13501-2:2016-07 |                     | According to the criteria of standard PN-EN 13501-2:2016-07 |                       |
|                                                                    |                  |                                               |                                                   |                                     |                                  |                                                                    | Fire resistance class                       | Maximum height [cm] |                                                             | Fire resistance class |
| 1                                                                  | 2                | 3                                             | 4                                                 | 5                                   | 6                                | 7                                                                  | 8                                           | 9                   | 10                                                          | 11                    |
| SD-2x12.5 GKF DF CW 75<br>SD-2x12.5 GKF DF VP 95                   | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 125<br>145                       | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 580<br>650<br>650     |
| SD-2x12.5 GKF1 DFH2 CW 75<br>SD-2x12.5 GKF1 DFH2 VP 95             | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 125<br>145                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 580<br>650<br>650     |
| SD-2x12.5 DFH2IR CW 75<br>SD-2x12.5 DFH2IR VP 95                   | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 125<br>145                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 580<br>650<br>650     |
| SD-2x12.5 GKF DF CW 75+CW 75<br>SD-2x12.5 GKF DF VP 95+VP 95       | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 125<br>145                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 620<br>650<br>650     |
| SD-2x12.5 GKF1 DFH2 CW 75+CW 75<br>SD-2x12.5 GKF1 DFH2 VP 95+VP 95 | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 125<br>145                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 620<br>650<br>650     |
| SD-2x12.5 DFH2IR CW 75+CW 75<br>SD-2x12.5 DFH2IR VP 95+VP 95       | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 125<br>145                       | EI 120                                                             | 400<br>400<br>400                           | EI 120              | 620<br>650<br>650                                           |                       |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.

Table 3

Technical details for the following types of the Norgips partition walls:

SD-2 x 12.5 GKFD CW 100, SD-2 x 12.5 GKFDH2 CW 100, SD-2 x 12.5 DFH2IR CW 100, SD-2 x 12.5 GKFD CW 100+CW 100, SD-2 x 12.5 GKFI DFH2 VP 120, SD-2 x 12.5 GKFI DFH2 VP 120, SD-2 x 12.5 DFH2IR VP 120, SD-2 x 12.5 GKFD VP 120+VP 120, SD-2 x 12.5 GKFI DFH2 VP 120+VP 120, SD-2 x 12.5 DFH2IR VP 120+VP 120.

| Symbol of the Norgips wall                                       | Type of profiles | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |      |                                             | Total thickness of the wall [mm]                                   | Filling with mineral wool | Fire resistance classification of the wall                  |                       |                     |
|------------------------------------------------------------------|------------------|-----------------------------------------------|---------------------------------------------------|------|---------------------------------------------|--------------------------------------------------------------------|---------------------------|-------------------------------------------------------------|-----------------------|---------------------|
|                                                                  |                  |                                               | Minimum weight of the board [kg/m <sup>2</sup> ]  |      | According to standard PN-EN 13501-2:2016-07 |                                                                    |                           | According to the criteria of standard PN-EN 13501-2:2016-07 |                       |                     |
|                                                                  |                  |                                               |                                                   |      |                                             |                                                                    |                           |                                                             |                       |                     |
| 1                                                                | 2                | 3                                             | 4                                                 | 5    | 6                                           | 7                                                                  | Fire resistance class     | Maximum height [cm]                                         | Fire resistance class | Maximum height [cm] |
| SD-2x12.5 GKF DF CW 100<br>SD-2x12.5 GKF DF VP 120               | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0 | 150<br>170                                  | No filling or any mineral wool of the A1 class of reaction to fire | 8                         | 9                                                           | 10                    | 11                  |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
| SD-2x12.5 GKF DF CW 100+CW 100<br>SD-2x12.5 GKF DF VP 120+VP 120 | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
| SD-2x12.5 GKF DFH2 CW 100<br>SD-2x12.5 GKF DFH2 VP 120+VP 120    | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
| SD-2x12.5 DFH2IR CW 100+CW 100<br>SD-2x12.5 DFH2IR VP 120+VP 120 | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0 | 150<br>170                                  |                                                                    | EI 120                    | 400<br>400<br>400                                           | EI 120                | 650<br>650<br>650   |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0 | 150<br>170                                  | EI 120                                                             | 400<br>400<br>400         | EI 120                                                      | 650<br>650<br>650     |                     |
|                                                                  |                  | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0 | 150<br>170                                  | EI 120                                                             | 400<br>400<br>400         | EI 120                                                      | 650<br>650<br>650     |                     |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.

Table 4

Technical details for the following types of the Norqips partition walls:

SD-2 x 12.5 GKF DF 2xCW 50, SD-2 x 12.5 GFH2R 2xCW 50, SD-2 x 12.5 GKF DF 2xCW 50+CW 50, SD-2 x 12.5 GKFI DFH2 2xCW 50, SD-2 x 12.5 GFH2R 2xCW 50+CW 50, SD-2 x 12.5 GKF DF 2xVP 66, SD-2 x 12.5 GKFI DFH2 2xVP 66, SD-2 x 12.5 GFH2R 2xVP 70, SD-2 x 12.5 GKF DF 2xVP 70, SD-2 x 12.5 GKFI DFH2 2xVP 70, SD-2 x 12.5 GKF DF 2xVP 70+VP 70, SD-2 x 12.5 GKFI DFH2 2xVP 70+VP 70, SD-2 x 12.5 GFH2R 2xVP 70+VP 70.

| Symbol of the Norgips wall       | Type of profiles | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |                                     | Total thickness of the wall [mm] | Filling with mineral wool                                          | Fire resistance classification of the wall                  |                     |                       |                     |
|----------------------------------|------------------|-----------------------------------------------|---------------------------------------------------|-------------------------------------|----------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------|---------------------|-----------------------|---------------------|
|                                  |                  |                                               | Type/thickness [mm]                               | Minimum weight of the board [kg/m²] |                                  |                                                                    | According to the criteria of standard PN-EN 13501-2:2016-07 |                     |                       |                     |
|                                  |                  |                                               |                                                   |                                     |                                  |                                                                    | Fire resistance class                                       | Maximum height [cm] | Fire resistance class | Maximum height [cm] |
| 1                                | 2                | 3                                             | 4                                                 | 5                                   | 6                                | 7                                                                  | 8                                                           | 9                   | 10                    | 11                  |
| SD-2x12.5 GKF DF 2xCW 50         | CW 50            | 60/62.5                                       | DF<br>2x12.5                                      | 10.0                                | 155                              | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                                      | 400                 | EI 120                | 440                 |
| SD-2x12.5 GKF DF 2xVP 66         | VP 66            | 40/41.7                                       |                                                   |                                     | 177                              |                                                                    |                                                             | 400                 |                       | 510                 |
| SD-2x12.5 GKF DF 2xVP 70         | VP 70            | 30/31.3                                       |                                                   |                                     | 195                              |                                                                    |                                                             | 400                 |                       | 570                 |
| SD-2x12.5 GKF DFH2 2xCW 50       | CW 50            | 60/62.5                                       | DFH2<br>2x12.5                                    | 10.0                                | 155                              |                                                                    | EI 120                                                      | 400                 | EI 120                | 440                 |
| SD-2x12.5 GKF DFH2 2xVP 66       | VP 66            | 40/41.7                                       |                                                   |                                     | 177                              |                                                                    |                                                             | 400                 |                       | 510                 |
| SD-2x12.5 GKF DFH2 2xVP 70       | VP 70            | 30/31.3                                       |                                                   |                                     | 195                              |                                                                    |                                                             | 400                 |                       | 570                 |
| SD-2x12.5 DFH2IR 2xCW 50         | CW 50            | 60/62.5                                       | DFH2IR<br>2x12.5                                  | 10.0                                | 155                              |                                                                    | EI 120                                                      | 400                 | EI 120                | 440                 |
| SD-2x12.5 DFH2IR 2xVP 66         | VP 66            | 40/41.7                                       |                                                   |                                     | 177                              |                                                                    |                                                             | 400                 |                       | 510                 |
| SD-2x12.5 DFH2IR 2xVP 70         | VP 70            | 30/31.3                                       |                                                   |                                     | 195                              |                                                                    |                                                             | 400                 |                       | 570                 |
| SD-2x12.5 GKF DF 2xCW 50+CW 50   | CW 50            | 60/62.5                                       | DF<br>2x12.5                                      | 10.0                                | 155                              |                                                                    | EI 120                                                      | 400                 | EI 120                | 510                 |
| SD-2x12.5 GKF DF 2xVP 66+VP 66   | VP 66            | 40/41.7                                       |                                                   |                                     | 177                              | 400                                                                |                                                             | 580                 |                       |                     |
| SD-2x12.5 GKF DF 2xVP 70+VP 70   | VP 70            | 30/31.3                                       |                                                   |                                     | 195                              | 400                                                                |                                                             | 610                 |                       |                     |
| SD-2x12.5 GKF DFH2 2xCW 50+CW 50 | CW 50            | 60/62.5                                       | DFH2<br>2x12.5                                    | 10.0                                | 155                              | EI 120                                                             | 400                                                         | EI 120              | 510                   |                     |
| SD-2x12.5 GKF DFH2 2xVP 66+VP 66 | VP 66            | 40/41.7                                       |                                                   |                                     | 177                              |                                                                    | 400                                                         |                     | 580                   |                     |
| SD-2x12.5 GKF DFH2 2xVP 70+VP 70 | VP 70            | 30/31.3                                       |                                                   |                                     | 195                              |                                                                    | 400                                                         |                     | 610                   |                     |
| SD-2x12.5 DFH2IR 2xCW 50+CW 50   | CW 50            | 60/62.5                                       | DFH2IR<br>2x12.5                                  | 10.0                                | 155                              | EI 120                                                             | 400                                                         | EI 120              | 510                   |                     |
| SD-2x12.5 DFH2IR 2xVP 66+VP 66   | VP 66            | 40/41.7                                       |                                                   |                                     | 177                              |                                                                    | 400                                                         |                     | 580                   |                     |
| SD-2x12.5 DFH2IR 2xVP 70+VP 70   | VP 70            | 30/31.3                                       |                                                   |                                     | 195                              |                                                                    | 400                                                         |                     | 610                   |                     |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.

|                                                          |                                       |                |
|----------------------------------------------------------|---------------------------------------|----------------|
| GRYFITLAB Spółka z o.o.<br>Group of Testing Laboratories | Classification No. LBO – 060 – KZ/20E | Page: 35 of 38 |
|----------------------------------------------------------|---------------------------------------|----------------|

Table 5

Technical details for the following types of the Norgips partition walls:

SD-2 x 12.5 GKF DF 2xCW 75, SD-2 x 12.5 GKFI DFH2 2xCW 75, SD-2 x 12.5 DFH2IR 2xCW 75, SD-2 x 12.5 GKF DF 2xVP 95, SD-2 x 12.5 GKFI DFH2 2xVP 95, SD-2 x 12.5 DFH2IR 2xVP 95, SD-2 x 12.5 GKF DF 2xVP 95+VP 95, SD-2 x 12.5 GKFI DFH2 2xVP 95+VP 95, SD-2 x 12.5 DFH2IR 2xVP 95+VP 95.

| Symbol of the Norgips wall                                             | Type of profiles | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |                                     | Total thickness of the wall [mm] | Filling with mineral wool                                          | Fire resistance classification of the wall  |                     |                                                             |                       |
|------------------------------------------------------------------------|------------------|-----------------------------------------------|---------------------------------------------------|-------------------------------------|----------------------------------|--------------------------------------------------------------------|---------------------------------------------|---------------------|-------------------------------------------------------------|-----------------------|
|                                                                        |                  |                                               | Type/thickness [mm]                               | Minimum weight of the board [kg/m²] |                                  |                                                                    | According to standard PN-EN 13501-2:2016-07 |                     | According to the criteria of standard PN-EN 13501-2:2016-07 |                       |
|                                                                        |                  |                                               |                                                   |                                     |                                  |                                                                    | Fire resistance class                       | Maximum height [cm] |                                                             | Fire resistance class |
| 1                                                                      | 2                | 3                                             | 4                                                 | 5                                   | 6                                | 7                                                                  | 8                                           | 9                   | 10                                                          | 11                    |
| SD-2x12.5 GKF DF 2xCW 75<br>SD-2x12.5 GKF DF 2xVP 95                   | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 205<br>245                       | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 610<br>650<br>650     |
| SD-2x12.5 GKFI DFH2 2xCW 75<br>SD-2x12.5 GKFI DFH2 2xVP 95             | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 205<br>245                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 610<br>650<br>650     |
| SD-2x12.5 DFH2IR 2xCW 75<br>SD-2x12.5 DFH2IR 2xVP 95                   | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 205<br>245                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 610<br>650<br>650     |
| SD-2x12.5 GKF DF 2xCW 75+CW 75<br>SD-2x12.5 GKF DF 2xVP 95+VP 95       | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 205<br>245                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 GKFI DFH2 2xCW 75+CW 75<br>SD-2x12.5 GKFI DFH2 2xVP 95+VP 95 | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 205<br>245                       | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 DFH2IR 2xCW 75+CW 75<br>SD-2x12.5 DFH2IR 2xVP 95+VP 95       | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 205<br>245                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 DFH2IR 2xCW 75+CW 75<br>SD-2x12.5 DFH2IR 2xVP 95+VP 95       | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 205<br>245                       | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 DFH2IR 2xCW 75+CW 75<br>SD-2x12.5 DFH2IR 2xVP 95+VP 95       | CW 75<br>VP 95   | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 205<br>245                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.

Table 6

Technical details for the following types of the Norgips partition walls:

SD-2 x 12.5 GKF DF 2xCW 100, SD-2 x 12.5 GKF DFH2 2xCW 100, SD-2 x 12.5 DFH2IR 2xCW 100, SD-2 x 12.5 GKF DF 2xCW 100+CW 100, SD-2 x 12.5 GKF DFH2 2xCW 100+CW 100, SD-2 x 12.5 DFH2IR 2xCW 100+CW 100, SD-2 x 12.5 GKF DF 2xVP 120, SD-2 x 12.5 GKF DFH2 2xVP 120, SD-2 x 12.5 DFH2IR 2xVP 120, SD-2 x 12.5 GKF DF 2xVP 120+VP 120, SD-2 x 12.5 GKF DFH2 2xVP 120+VP 120, SD-2 x 12.5 DFH2IR 2xVP 120+VP 120.

| Symbol of the Norgips wall                                                 | Type of profiles | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |                                     | Total thickness of the wall [mm] | Filling with mineral wool                                          | Fire resistance classification of the wall  |                     |                                                             |                       |
|----------------------------------------------------------------------------|------------------|-----------------------------------------------|---------------------------------------------------|-------------------------------------|----------------------------------|--------------------------------------------------------------------|---------------------------------------------|---------------------|-------------------------------------------------------------|-----------------------|
|                                                                            |                  |                                               | Type/thickness [mm]                               | Minimum weight of the board [kg/m²] |                                  |                                                                    | According to standard PN-EN 13501-2:2016-07 |                     | According to the criteria of standard PN-EN 13501-2:2016-07 |                       |
|                                                                            |                  |                                               |                                                   |                                     |                                  |                                                                    | Fire resistance class                       | Maximum height [cm] |                                                             | Fire resistance class |
| 1                                                                          | 2                | 3                                             | 4                                                 | 5                                   | 6                                | 7                                                                  | 8                                           | 9                   | 10                                                          | 11                    |
| SD-2x12.5 GKF DF 2xCW 100<br>SD-2x12.5 GKF DF 2xVP 120                     | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 155<br>295                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 GKF1 DFH2 2xCW 100<br>SD-2x12.5 GKF1 DFH2 2xVP 120               | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 155<br>295                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 DFH2IR 2xCW 100<br>SD-2x12.5 DFH2IR 2xVP 120                     | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 155<br>295                       | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 GKF DF 2xCW 100+CW 100<br>SD-2x12.5 GKF DF 2xVP 120+VP 120       | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 155<br>295                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 GKF1 DFH2 2xCW 100+CW 100<br>SD-2x12.5 GKF1 DFH2 2xVP 120+VP 120 | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 155<br>295                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SD-2x12.5 DFH2IR 2xCW 100+CW 100<br>SD-2x12.5 DFH2IR 2xVP 120+VP 120       | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 155<br>295                       |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.

Table 7

Technical details for the following types of the Norgips partition walls:

SDI-2 x 12.5 GKF DF 2xCW 50, SDI-2 x 12.5 GKF DFH2 2xCW 50, SDI-2 x 12.5 GKF DF 2xCW 75, SDI-2 x 12.5 GKF DFH2 2xCW 75, SDI-2 x 12.5 GKF DF 2xVP 66, SDI-2 x 12.5 GKF DFH2 2xVP 66, SDI-2 x 12.5 GKF DF 2xVP 95, SDI-2 x 12.5 GKF DFH2 2xVP 95, SDI-2 x 12.5 GKF DF 2xVP 70, SDI-2 x 12.5 GKF DFH2 2xVP 70, SDI-2 x 12.5 GKF DF 2xVP 95, SDI-2 x 12.5 GKF DFH2 2xVP 95, SDI-2 x 12.5 GKF DFH2 2xVP 95.

| Symbol of the Norgips wall                                                                | Type of profiles        | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |                                     | Maximum thickness of the wall [mm] | Filling with mineral wool                                          | Fire resistance classification of the wall  |                     |                                                             |                       |
|-------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------|---------------------------------------------------|-------------------------------------|------------------------------------|--------------------------------------------------------------------|---------------------------------------------|---------------------|-------------------------------------------------------------|-----------------------|
|                                                                                           |                         |                                               | Type/thickness [mm]                               | Minimum weight of the board [kg/m²] |                                    |                                                                    | According to standard PN-EN 13501-2:2016-07 |                     | According to the criteria of standard PN-EN 13501-2:2016-07 |                       |
|                                                                                           |                         |                                               |                                                   |                                     |                                    |                                                                    | Fire resistance class                       | Maximum height [cm] |                                                             | Fire resistance class |
| 1                                                                                         | 2                       | 3                                             | 4                                                 | 5                                   | 6                                  | 7                                                                  | 8                                           | 9                   | 10                                                          | 11                    |
| SDI-2x12.5 GKF DF 2xCW 50<br>SDI-2x12.5 GKF DF 2xVP 66<br>SDI-2x12.5 GKF DF 2xVP 70       | CW 50<br>VP 66<br>VP 70 | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 280                                | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 490<br>560<br>630     |
| SDI-2x12.5 GKF DFH2 2xCW 50<br>SDI-2x12.5 GKF DFH2 2xVP 66<br>SDI-2x12.5 GKF DFH2 2xVP 70 | CW 50<br>VP 66<br>VP 70 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 280                                |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 490<br>560<br>630     |
| SDI-2x12.5 DFH2IR 2xCW 50<br>SDI-2x12.5 DFH2IR 2xVP 66<br>SDI-2x12.5 DFH2IR 2xVP 70       | CW 50<br>VP 66<br>VP 70 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 280                                |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 490<br>560<br>630     |
| SDI-2x12.5 GKF DF 2xCW 75<br>SDI-2x12.5 GKF DF 2xVP 95                                    | CW 75<br>VP 95          | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 330                                |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SDI-2x12.5 GKF DFH2 2xCW 75<br>SDI-2x12.5 GKF DFH2 2xVP 95                                | CW 75<br>VP 95          | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 330                                |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |
| SDI-2x12.5 DFH2IR 2xCW 75<br>SDI-2x12.5 DFH2IR 2xVP 95                                    | CW 75<br>VP 95          | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 330                                |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650     |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.

Table 8

Technical details for the following types of the Norgips partition walls:

**SDI-2 x 12.5 GKF DF 2xCW 100, SDI-2 x 12.5 GKFI DFH2 2xCW 100, SDI-2 x 12.5 DFH2IR 2xCW 100, SDI-2 x 12.5 GKF DF 2xVP 120, SDI-2 x 12.5 GKFI DFH2 2xVP 120, SDI-2 x 12.5 DFH2IR 2xVP 120.**

| Symbol of the Norgips wall                                     | Type of profiles | Maximum distance between the CW profiles [cm] | Type of the cladding made of gypsum plasterboards |                                     | Maximum thickness of the wall [mm] | Filling with mineral wool                                          | Fire resistance classification of the wall  |                     |                                                             |                   |
|----------------------------------------------------------------|------------------|-----------------------------------------------|---------------------------------------------------|-------------------------------------|------------------------------------|--------------------------------------------------------------------|---------------------------------------------|---------------------|-------------------------------------------------------------|-------------------|
|                                                                |                  |                                               | Type/thickness [mm]                               | Minimum weight of the board [kg/m²] |                                    |                                                                    | According to standard PN-EN 13501-2:2016-07 |                     | According to the criteria of standard PN-EN 13501-2:2016-07 |                   |
|                                                                |                  |                                               |                                                   |                                     |                                    |                                                                    | Fire resistance class                       | Maximum height [cm] |                                                             |                   |
| 1                                                              | 2                | 3                                             | 4                                                 | 5                                   | 6                                  | 7                                                                  | 8                                           | 9                   | 10                                                          | 11                |
| SDI-2x12.5 GKF DF 2xCW 100<br>SDI-2x12.5 GKF DF 2xVP 120       | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DF<br>2x12.5                                      | 10.0                                | 380                                | No filling or any mineral wool of the A1 class of reaction to fire | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650 |
| SDI-2x12.5 GKFI DFH2 2xCW 100<br>SDI-2x12.5 GKFI DFH2 2xVP 120 | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2<br>2x12.5                                    | 10.0                                | 380                                |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650 |
| SDI-2x12.5 DFH2IR 2xCW 100<br>SDI-2x12.5 DFH2IR 2xVP 120       | CW 100<br>VP 120 | 60/62.5<br>40/41.7<br>30/31.3                 | DFH2IR<br>2x12.5                                  | 10.0                                | 380                                |                                                                    | EI 120                                      | 400<br>400<br>400   | EI 120                                                      | 650<br>650<br>650 |

Note: For acoustic reasons, it is possible to use mineral wool and gypsum plasterboards of greater thickness and additional layers of boards.