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Fire resistance classification No. LBO – 758 – K/22E

Classified product:

Partition walls, Norgips, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR

Sponsor:

Norgips Sp. z o.o.
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02-634 Warszawa

Prepared by:

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Place and date of issue:

Łozienica, 15.11.2022

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 13501-2:2016-07 Fire classification of construction products and building elements – Part 2: Classification using data from fire resistance tests, excluding ventilation services.

1.2. Standard PN-EN 1364-1:2015-08 Fire resistance tests for non-loadbearing elements – Part 1: Walls.

1.3. Standard PN-EN 1363-1:2020-07 Fire resistance tests – Part 1: General requirements.

1.4. Test Report No. LBO-758/15 Partition wall SD – 3x12.5 GKF DF CW 50. Fire Tests Laboratory, GRYFITLAB Spółka z o.o., Łozienica 2015.

1.5. Drawings and technical documentation provided by the Sponsor.

1.6. Technical evaluation of Norgips partition walls. Reference number of the evaluation: 06041/14/R20NK (LK00-06041/14/R20NK). Building Research Institute, Warsaw 2014.

2. Technical description of Norgips partition walls double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR type DFH2IR

2.1 Partition walls SD-3x12.5 GKF DF/CW 50, SD-3x12.5 GKF DF/CW 75, SD-3x12.5 GKF DF/CW 100, SD-3x12.5 GKFI DFH2/CW 50, SD-3x12.5 GKFI DFH2/CW 75, SD-3x12.5 GKFI DFH2/CW 100, SD-3x12.5 AKU DFH2IR/CW 50, SD-3x12.5 AKU DFH2IR/CW 75, SD-3x12.5 AKU DFH2IR/CW 100, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2, or Norgips AKU DFH2IR with a single framework

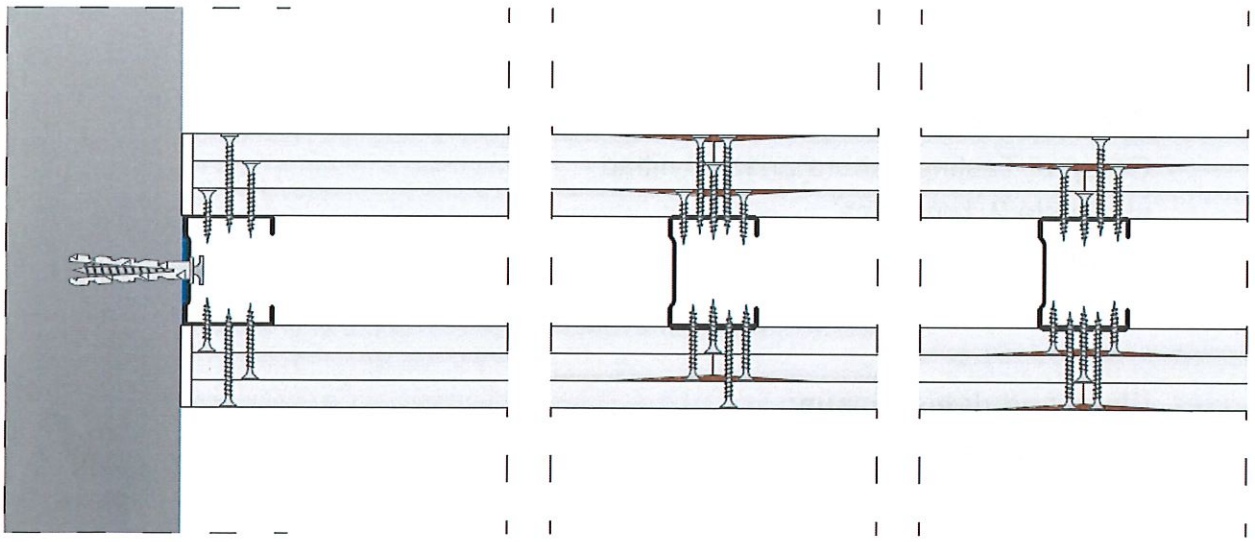

Figure A. Walls described in item 2.1

The construction of the walls is made of e.g. Norgips profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100**. The profiles are made of cold bent galvanized steel; the nominal thickness of the steel used is **0.55 mm** (tolerance +/- 0.06 mm) or **0.6 mm** (tolerance +/- 0.06 mm).

Perimeter profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100** are fixed to the ceiling, floor and side walls by means of mechanical connectors, such as: wall plugs, dowels etc. 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** or **CW 100** are vertically slid between the bottom and top webs of, respectively, profiles **UW 50, UW 75** or **UW 100.**

The maximum distance between the axes of profiles **CW 50, CW 75 or CW 100** is **60 cm** or **62.5 cm**. The length of profiles **CW 50, CW 75 or CW 100** should be 1.5 cm less than the distance between the webs of the bottom and top profiles **UW 50, UW 75 or UW 100.**

The first layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 25 mm** placed at most every **75 cm.** The second layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 35 mm** placed at most every **50 cm.** The third layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 55 mm** placed at most every **25 cm.**

The boards are installed and fixed so that vertical joints between two sides of the wall (in the first covering layer) are staggered to avoid locating them on one stud. For this purpose, boards of one side of the first covering layer of the wall are shifted in relation to the respective boards of the other side of the first covering layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the second covering layer of the wall are shifted in relation to the respective boards of the first layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the third covering layer of the wall are shifted in relation to the respective boards of the second layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**.

In case of surface horizontal joints between adjacent boards of the wall, the joints have to be shifted in relation to one another by minimally **40 cm**. Horizontal joints in the second covering layer are shifted in relation to the respective horizontal joints in the first layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the second layer by minimally **40 cm**. Horizontal joints in the third covering layer are shifted in relation to the respective horizontal joints in the second layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the third layer by minimally **40 cm**.

The screw heads as well as the vertical and horizontal joints between the **GKF** plasterboards **type DF** or the **GKFI** plasterboards type **DFH2** or the **AKU** plasterboards type **DFH2IR** are filled with gypsum plaster jointing compound e.g. **Norgips Start, Norgips Super Filler, Norgips Start & Finish or Norgips Strong Filler**, while the vertical and horizontal joints in the third layer of boards are additionally strengthened with self-adhesive reinforcing tapes made of glass fibre or with reinforcing tapes made of interlining. For final filling, it is recommended to apply ready to use jointing compounds e.g. **Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler**. Taking into account the acoustic considerations, it is possible to fill the wall with any mineral wool of the A1 reaction to fire class.

Details of the construction of the partition walls are presented in **Figures 1 ÷ 4.**

The fire resistance classification of the walls is presented in **Table 1 – columns 7 and 9**; the maximum heights of the walls are specified in **Table 1 – columns 8 and 10**. In places where there are constructional expansion joints of a building and in case when a wall section without expansion joints is longer than 15 m, one should provide expansion joints (**Figures 5 - 6**).

2.2 Partition walls SD-3x12.5 GKF DF/CW 50+CW 50, SD-3x12.5 GKF DF/CW 75+CW 75, SD-3x12.5 GKF DF/CW 100+CW 100, SD-3x12.5 GKFI DFH2/CW 50+CW 50, SD-3x12.5 GKFI DFH2/CW 75+CW 75, SD-3x12.5 GKFI DFH2/CW 100+CW 100, SD-3x12.5 AKU DFH2IR/CW 50+CW 50, SD-3x12.5 AKU DFH2IR/CW 75+CW 75, SD-3x12.5 AKU DFH2IR/CW 100+CW 100, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR, with a single framework and double CW profiles

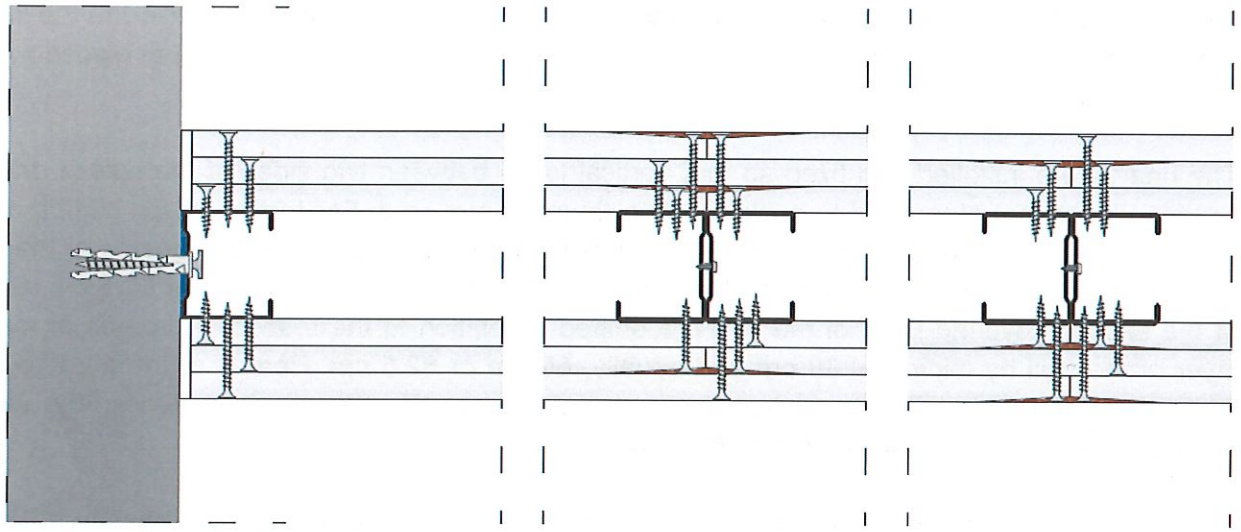

Figure B. Walls described in item 2.2

The construction of the walls is made of e.g. Norgips profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100**. The profiles are made of cold bent galvanized steel; the nominal thickness of the steel used is **0.55 mm** (tolerance +/- 0.06 mm) or **0.6 mm** (tolerance +/- 0.06 mm).

Perimeter profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100** are fixed to the ceiling, floor and side walls by means of mechanical connectors, such as: wall plugs, dowels etc. 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** or **CW 100** are vertically slid between the bottom and top webs of, respectively, profiles **UW 50, UW 75** or **UW 100.** Each double profile consists of two single profiles screwed with one another along their webs, by means of screws Ø 3.5 x 9.5 mm with the self-drilling end; the screws are placed at most every 40 cm. The maximum distance between the axes of profiles constituting double profiles **CW 50, CW 75** or **CW 100** is **60 cm** or **62.5 cm**. The length of profiles **CW 50, CW 75 or CW 100** should

be 1.5 cm less than the distance between the webs of the bottom and top profiles **UW 50, UW 75 or UW 100.**

The first layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 25 mm** placed at most every **75 cm.** The second layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 35 mm** placed at most every **50 cm.** The third layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 55 mm** placed at most every **25 cm.**

The boards are installed and fixed so that vertical joints between two sides of the wall (in the first covering layer) are staggered to avoid locating them on one stud. For this purpose, boards of one side of the first covering layer of the wall are shifted in relation to the respective boards of the other side of the first covering layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the second covering layer of the wall are shifted in relation to the respective boards of the first layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the third covering layer of the wall are shifted in relation to the respective boards of the second layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**.

In case of surface horizontal joints between adjacent boards of the wall, the joints have to be shifted in relation to one another by minimally **40 cm**. Horizontal joints in the second covering layer are shifted in relation to the respective horizontal joints in the first layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the second layer by minimally **40 cm**. Horizontal joints in the third covering layer are shifted in relation to the respective horizontal joints in the second layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the third layer by minimally **40 cm**.

The screw heads as well as the vertical and horizontal joints between the **GKF** plasterboards **type DF** or the **GKFI** plasterboards type **DFH2** or the **AKU** plasterboards type **DFH2IR** are filled with gypsum plaster jointing compound e.g. **Norgips Start, Norgips Super Filler, Norgips Start & Finish or Norgips Strong Filler**, while the vertical and horizontal joints in the third layer of boards are additionally strengthened with self-adhesive reinforcing tapes made of glass fibre or with reinforcing tapes made of interlining. For final filling, it is recommended to apply ready to use jointing compounds e.g. **Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler**. Taking into account the acoustic considerations, it is possible to fill the wall with any mineral wool of the A1 reaction to fire class.

The fire resistance classification of the walls is presented in **Table 2 – columns 7 and 9**; the maximum heights of the walls are specified in **Table 2 – columns 8 and 10**.

In places where there are constructional expansion joints of a building and in case when a wall section without expansion joints is longer than 15 m, one should provide expansion joints.

2.3 Partition walls SD-3x12.5 GKF DF/2xCW 50, SD-3x12.5 GKF DF/2xCW 75, SD-3x12.5 GKF DF/2xCW 100, SD-3x12.5 GKFI DFH2/2xCW 50, SD-3x12.5 GKFI DFH2/2xCW 75, SD-3x12.5 GKFI DFH2/2xCW 100, SD-3x12.5 AKU DFH2IR/2xCW 50, SD-3x12.5 AKU DFH2IR/2xCW 75, SD-3x12.5 AKU DFH2IR/2xCW 100, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR, with a double framework

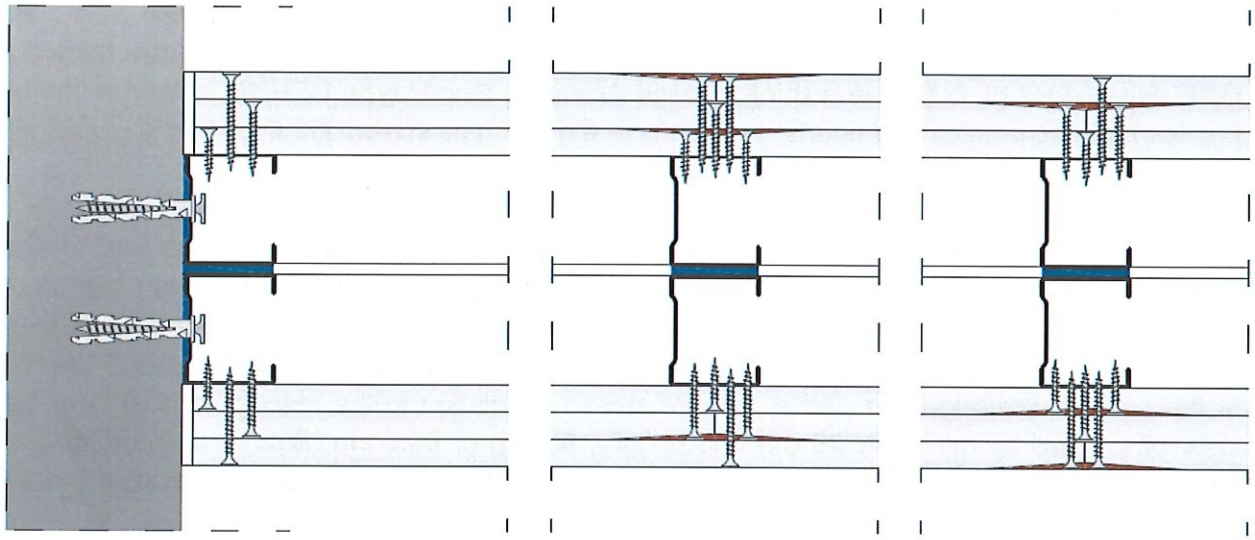

Figure C. Walls described in item 2.3

The construction of the walls is made of e.g. Norgips profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100**. The profiles are made of cold bent galvanized steel; the nominal thickness of the steel used is **0.55 mm** (tolerance +/- 0.06 mm) or **0.6 mm** (tolerance +/- 0.06 mm).

Perimeter profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100** 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: wall plugs, dowels etc. 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 applied between adjacent profiles **CW 50 and UW 50, CW 75 and UW 75 or CW 100 and UW 100** which are placed in the two rows of the construction. Single profiles **CW 50, CW 75** or **CW 100** are vertically slid between the bottom and top webs of, respectively, profiles **UW 50, UW 75** or **UW 100.** The maximum distance between the axes of profiles **CW 50, CW 75** or **CW 100** is **60 cm** or **62.5 cm**. The length of profiles **CW 50, CW 75 or CW 100** should be 1.5 cm less than the distance between the webs of the bottom and top profiles **UW 50, UW 75 or UW 100.**

The first layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 25 mm** placed at most every **75 cm.** The second layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 35 mm** placed at most

every **50 cm.** The third layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 55 mm** placed at most every **25 cm.**

The boards are installed and fixed so that vertical joints between two sides of the wall (in the first covering layer) are staggered to avoid locating them on one stud. For this purpose, boards of one side of the first covering layer of the wall are shifted in relation to the respective boards of the other side of the first covering layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the second covering layer of the wall are shifted in relation to the respective boards of the first layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the third covering layer of the wall are shifted in relation to the respective boards of the second layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**.

In case of surface horizontal joints between adjacent boards of the wall, the joints have to be shifted in relation to one another by minimally **40 cm**. Horizontal joints in the second covering layer are shifted in relation to the respective horizontal joints in the first layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the second layer by minimally **40 cm**. Horizontal joints in the third covering layer are shifted in relation to the respective horizontal joints in the second layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the third layer by minimally **40 cm**.

The screw heads as well as the vertical and horizontal joints between the **GKF** plasterboards **type DF** or the **GKFI** plasterboards type **DFH2** or the **AKU** plasterboards type **DFH2IR** are filled with gypsum plaster jointing compound e.g. **Norgips Start, Norgips Super Filler, Norgips Start & Finish or Norgips Strong Filler**, while the vertical and horizontal joints in the third layer of boards are additionally strengthened with self-adhesive reinforcing tapes made of glass fibre or with reinforcing tapes made of interlining. For final filling, it is recommended to apply ready to use jointing compounds e.g. **Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler**. Taking into account the acoustic considerations, it is possible to fill the wall with any mineral wool of the A1 reaction to fire class.

Details of the construction of the partition walls are presented in **Figures 7 – 10**.

The fire resistance classification of the walls is presented in **Table 3 – columns 7 and 9**; the maximum heights of the walls are specified in **Table 3 – columns 8 and 10**.

In places where there are constructional expansion joints of a building and in case when a wall section without expansion joints is longer than 15 m, one should provide expansion joints (**Figures 11 - 12**).

2.4 Partition walls SD-3x12.5 GKF DF/2xCW 50+CW 50, SD-3x12.5 GKF DF/2xCW 75+CW 75, SD-3x12.5 GKF DF/2xCW 100+CW 100, SD-3x12.5 GKFI DFH2/2xCW 50+CW 50, SD-3x12.5 GKFI DFH2/2xCW 75+CW 75, SD-3x12.5 GKFI DFH2/2xCW 100+CW 100, SD-3x12.5 AKU DFH2IR/2xCW 50+CW 50, SD-3x12.5 AKU DFH2IR/2xCW 75+CW 75, SD-3x12.5 AKU DFH2IR/2xCW 100+CW 100, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR, with a double framework and double CW profiles

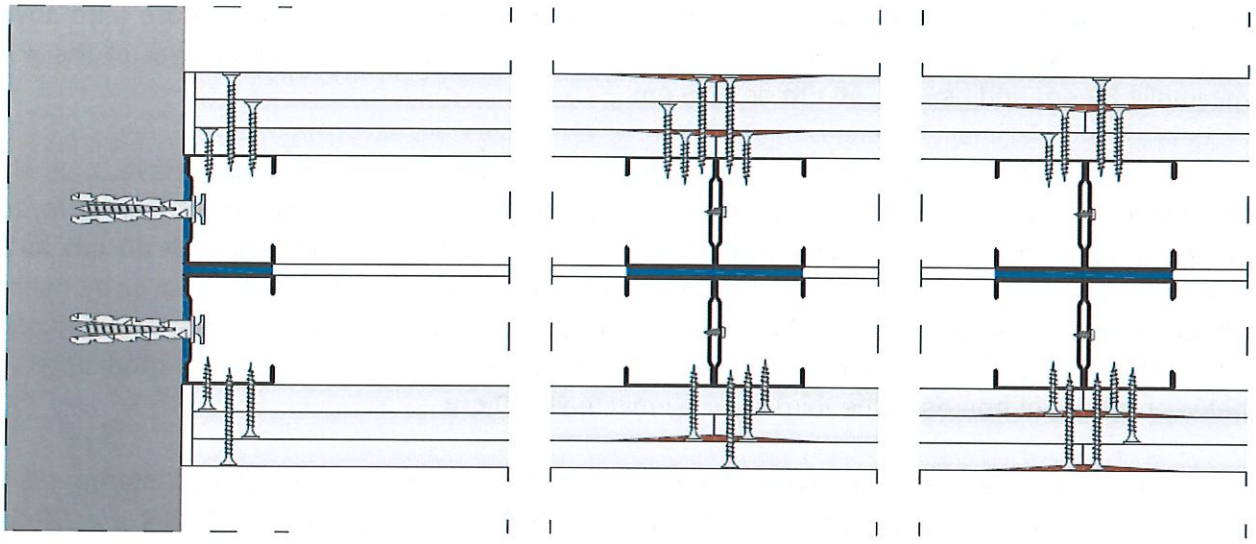

Figure D. Walls described in item 2.4

The construction of the walls is made of e.g. Norgips profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100**. The profiles are made of cold bent galvanized steel; the nominal thickness of the steel used is **0.55 mm** (tolerance +/- 0.06 mm) or **0.6 mm** (tolerance +/- 0.06 mm).

Perimeter profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100** 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: wall plugs, dowels etc. 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 applied between adjacent profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100** which are placed in the two rows of the construction. Double profiles **CW 50, CW 75** or **CW 100** are vertically slid between the bottom and top webs of, respectively, profiles **UW 50, UW 75** or **UW 100.** Each double profile consists of two single profiles screwed with one another along their webs, by means of screws **Ø 3.5 x 9.5 mm** with the self-drilling end; the screws are placed at most every 40 cm. The maximum distance between the axes of profiles constituting double profiles **CW 50, CW 75** or **CW 100** is **60 cm** or **62.5 cm**. The length of profiles **CW 50, CW 75 or CW 100** should be 1.5 cm less than the distance between the webs of the bottom and top profiles **UW 50, UW 75 or UW 100.**

The first layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW**

and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 25 mm** placed at most every **75 cm.** The second layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 35 mm** placed at most every **50 cm.** The third layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of e.g. Norgips screws **Ø3.5 x 55 mm** placed at most every **25 cm.**

The boards are installed and fixed so that vertical joints between two sides of the wall (in the first covering layer) are staggered to avoid locating them on one stud. For this purpose, boards of one side of the first covering layer of the wall are shifted in relation to the respective boards of the other side of the first covering layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the second covering layer of the wall are shifted in relation to the respective boards of the first layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the third covering layer of the wall are shifted in relation to the respective boards of the second layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**.

In case of surface horizontal joints between adjacent boards of the wall, the joints have to be shifted in relation to one another by minimally **40 cm**. Horizontal joints in the second covering layer are shifted in relation to the respective horizontal joints in the first layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the second layer by minimally **40 cm**. Horizontal joints in the third covering layer are shifted in relation to the respective horizontal joints in the second layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the third layer by minimally **40 cm**.

The screw heads as well as the vertical and horizontal joints between the **GKF** plasterboards **type DF** or the **GKFI** plasterboards type **DFH2** or the **AKU** plasterboards type **DFH2IR** are filled with gypsum plaster jointing compound e.g. **Norgips Start, Norgips Super Filler, Norgips Start & Finish or Norgips Strong Filler**, while the vertical and horizontal joints in the third layer of boards are additionally strengthened with self-adhesive reinforcing tapes made of glass fibre or with reinforcing tapes made of interlining. For final filling, it is recommended to apply ready to use jointing compounds e.g. **Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler**. Taking into account the acoustic considerations, it is possible to fill the wall with any mineral wool of the A1 reaction to fire class.

The fire resistance classification of the walls is presented in **Table 4 – columns 7 and 9**; the maximum heights of the walls are specified in **Table 4 – columns 8 and 10**.

In places where there are constructional expansion joints of a building and in case when a wall section without expansion joints is longer than 15 m, one should provide expansion joints.

2.5 Partition walls SDI-3x12.5 GKF DF/2xCW 50, SDI-3x12.5 GKF DF/2xCW 75, SDI-3x12.5 GKF DF/2xCW 100, SDI-3x12.5 GKFI DFH2/2xCW 50, SDI-3x12.5 GKFI DFH2/2xCW 75, SDI-3x12.5 GKFI DFH2/2xCW 100, SDI-3x12.5 AKU DFH2IR/2xCW 50, SDI-3x12.5 AKU DFH2IR/2xCW 75, SDI-3x12.5 AKU DFH2IR/2xCW 100, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR, with a double framework

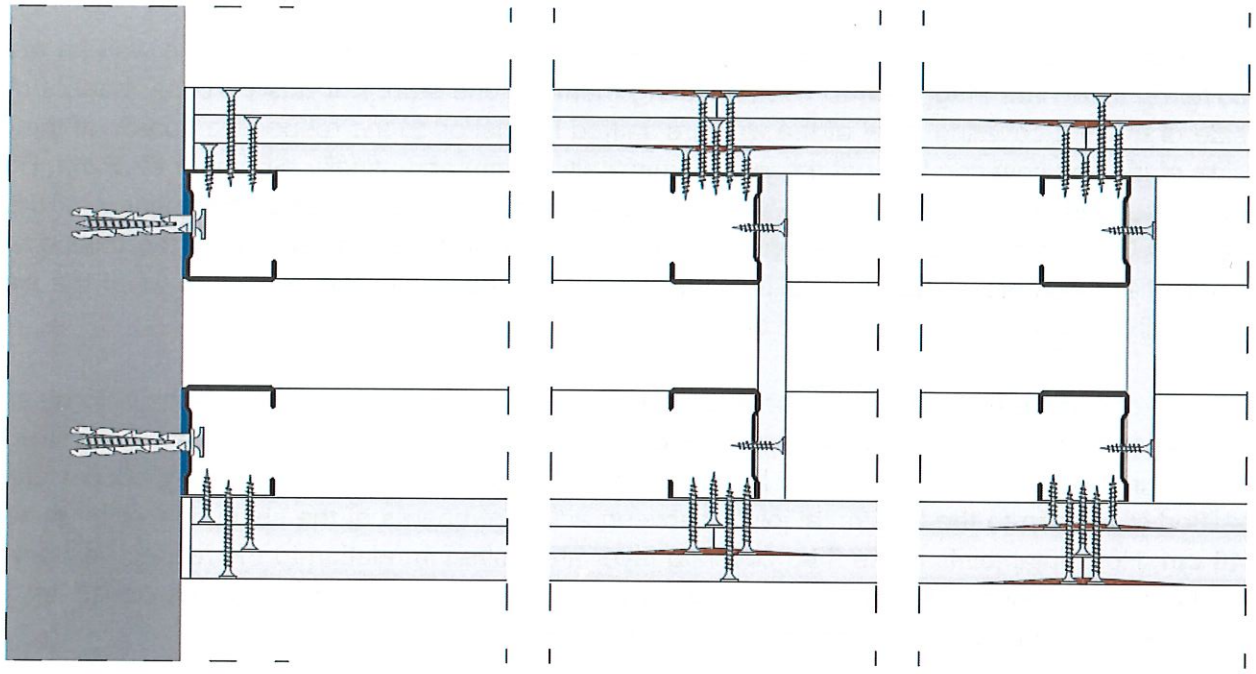

Figure E. Walls described in item 2.5

The construction of the walls is made of e.g. Norgips profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100**. The profiles are made of cold bent galvanized steel; the nominal thickness of the steel used is **0.55 mm** (tolerance +/- 0.06 mm) or **0.6 mm** (tolerance +/- 0.06 mm).

Perimeter profiles **CW 50 and UW 50, CW 75 and UW 75** or **CW 100 and UW 100** 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: wall plugs, dowels etc. 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** or **CW 100** are vertically slid between the bottom and top webs of, respectively, profiles **UW 50, UW 75** or **UW 100.** Adjacent profiles **CW 50, CW 75** or **CW 100** placed in the two rows are connected with one another by means of crosspieces made of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR**. The minimum height of the crosspieces cannot be less than 30 cm. The maximum distance between the axes of profiles **CW 50, CW 75** or **CW 100** is **60 cm** or **62.5 cm**. The length of profiles **CW 50, CW 75 or CW 100** should be 1.5 cm less than the distance between the webs of the bottom and top profiles **UW 50, UW 75 or UW 100.**

The first layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of Norgips screws **Ø3.5 x 25 mm** placed at most every **75 cm.** The second layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of Norgips screws **Ø3.5 x 35 mm** placed at most every **50 cm.** The third layer of **1x12.5 mm thick boards GKF type DF** or **1x12.5 mm thick boards GKFI type DFH2** or **1x12.5 mm thick boards Acoustic Super type DFH2IR** is fixed to the bottom profiles **UW** and profiles **CW** (studs) by means of Norgips screws **Ø3.5 x 55 mm** placed at most every **25 cm.**

The boards are installed and fixed so that vertical joints between two sides of the wall (in the first covering layer) are staggered to avoid locating them on one stud. For this purpose, boards of one side of the first covering layer of the wall are shifted in relation to the respective boards of the other side of the first covering layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the second covering layer of the wall are shifted in relation to the respective boards of the first layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**. Boards of the third covering layer of the wall are shifted in relation to the respective boards of the second layer of the wall by minimally **30 cm** and usually, **60 cm** or **62.5 cm**.

In case of surface horizontal joints between adjacent boards of the wall, the joints have to be shifted in relation to one another by minimally **40 cm**. Horizontal joints in the second covering layer are shifted in relation to the respective horizontal joints in the first layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the second layer by minimally **40 cm**. Horizontal joints in the third covering layer are shifted in relation to the respective horizontal joints in the second layer by minimally **40 cm** and are shifted in relation to the horizontal joints between adjacent boards of the third layer by minimally **40 cm**.

The screw heads as well as the vertical and horizontal joints between the **GKF** plasterboards **type DF** or the **GKFI** plasterboards type **DFH2** or the **AKU** plasterboards type **DFH2IR** are filled with gypsum plaster jointing compound e.g. **Norgips Start, Norgips Super Filler, Norgips Start & Finish or Norgips Strong Filler**, while the vertical and horizontal joints in the third layer of boards are additionally strengthened with self-adhesive reinforcing tapes made of glass fibre or with reinforcing tapes made of interlining. For final filling, it is recommended to apply ready to use Norgips jointing compounds e.g. **Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler**. Taking into account the acoustic considerations, it is possible to fill the wall with any mineral wool of the A1 reaction to fire class.

Details of the construction of the partition walls are presented in **Figures 13 – 16**.

The fire resistance classification of the walls is presented in **Table 5 – columns 7 and 9**; the maximum heights of the walls are specified in **Table 5 – columns 8 and 10**.

In places where there are constructional expansion joints of a building and in case when a wall section without expansion joints is longer than 15 m, one should provide expansion joints.

3. Fire resistance tests

Fire resistance tests of Norgips partition wall made of 3x12.5 mm thick gypsum plasterboards were carried out in the Fire Tests Laboratory of Gryfitlab Spółka z.o.o., in Łozienica.

Test report: No. LBO-758/15 [1.4].

4. Fire resistance classification of Norgips partition walls, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR

Based on the analysis of test results indicated in item 3, Norgips partition walls double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR, manufactured and installed in accordance with the technical description presented in item 2, are classified as follows:

- according to standard PN-EN 13501-2:2016-07 [1.1]: as belonging to fire resistance classes specified in Tables 1 to 5, in column 7 – for the maximum height of the walls specified in column 8,
- according to the criteria of standard PN-EN 13501-2:2016-07 [1.1]: as belonging to fire resistance classes specified in Tables 1 to 5, in column 9 – for the maximum height of the walls specified in column 10.

5. Norgips partition walls, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR, used as fire separation

In view of fire safety, according to the requirements specified in the ordinance of the Minister of Infrastructure of 12th April 2002 on technical requirements to be fulfilled by buildings and their localization (Journal of Laws of 2001, No. 75, item 690 with later amendments), taking into account the classification presented in item 4 herein, Norgips partition walls, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR, manufactured and installed in accordance with the technical description specified in item 2 herein, may be used as fire separation meeting the classification criteria for the REI fire resistance class specified in the ordinance in question, if the following conditions are fulfilled:

- the walls are either fixed to or placed on a construction which meets the EI criteria for a fire resistance class not lower than the fire resistance class of the partition wall,
- the walls are not subjected to mechanical loads generated by the construction of a building,
- the walls are fixed to the elements of a building in accordance with the solution presented in the construction design.

6. Restriction

The classification presented in item 4 is valid for elements made of 12.5 mm thick Norgips gypsum plasterboards, manufactured in accordance with standard PN-EN 520+A1:2012, and of the surface density not less than:

10.1 kg/m^2 – for boards type DF and DFH2
11.4 kg/m^2 – for boards type DFH2IR

Classification No. LBO – 758 – K/22E may only be used or reproduced in its entirety.

7. Validity

This classification is valid until 15.11.2027 on the condition that there are no changes in the construction or materials of the classified products.

Prezes Zarządu
Andrzej Szarycki

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8. Tables, figures

Norgips partition walls, double-sided cladded with 3x12.5 mm thick gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IR

Table 1

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

SD-3x12.5 GKF DF/CW 50, SD-3x12.5 GKFI DFH2/CW 50, SD-3x12.5 AKU DFH2IR/CW 50,
SD-3x12.5 GKF DF/CW 75, SD-3x12.5 GKFI DFH2/CW 75, SD-3x12.5 AKU DFH2IR/CW 75,
SD-3x12.5 GKF DF/CW 100, SD-3x12.5 GKFI DFH2/CW 100, SD-3x12.5 AKU DFH2IR/CW 100

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
			Type/ thickness [mm]	Minimum surface density [kg/m²]			As per PN-EN 13501-2:2016-07		As per the criteria of 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
SD-3x12.5 GKF DF/CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	125	No filling or any mineral wool of the A1 reaction to fire class	EI 180	400 400 400	EI 180	440 480 580
SD-3x12.5 GKFI DFH2/CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	125		EI 180	400 400 400	EI 180	440 480 580
SD-3x12.5 AKU DFH2IR/CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	125		EI 180	400 400 400	EI 180	440 480 580
SD-3x12.5 GKF DF/CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	150		EI 180	400 400 400	EI 180	640 650 650
SD-3x12.5 GKFI DFH2/CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	150		EI 180	400 400 400	EI 180	640 650 650

Table 1, continued

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
			Type/ thickness [mm]	Minimum surface density [kg/m²]			As per PN-EN 13501-2:2016-07		As per the criteria of 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
SD-3x12.5 AKU DFH2IR/CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	150	1)	EI 180	400 400 400	EI 180	640 650 650
SD-3x12.5 GKF DF/CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	175		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKFI DFH2/CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	175		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 AKU DFH2IR/CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	175		EI 180	400 400 400	EI 180	650 650 650

1) No filling or any mineral wool of the A1 reaction to fire class

NOTE: Taking into account the acoustic considerations, it is possible to use thicker mineral wool and gypsum plasterboards, and additional layers of boards.

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Table 2

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

SD-3x12.5 GKF DF/CW 50+CW 50, SD-3x12.5 GKFI DFH2/CW 50+CW 50, SD-3x12.5 AKU DFH2IR/CW 50+CW 50,
SD-3x12.5 GKF DF/CW 75+CW 75, SD-3x12.5 GKFI DFH2/CW 75+CW 75, SD-3x12.5 AKU DFH2IR/CW 75+CW 75,
SD-3x12.5 GKF DF/CW 100+CW 100, SD-3x12.5 GKFI DFH2/CW 100+CW 100, SD-3x12.5 AKU DFH2IR/CW 100+CW 100

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
			Type/ thickness [mm]	Minimum surface density [kg/m²]			As per PN-EN 13501-2:2016-07		As per the criteria of 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
SD-3x12.5 GKF DF/ CW 50+CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	125	No filling or any mineral wool of the A1 reaction to fire class	EI 180	400 400 400	EI 180	510 580 610
SD-3x12.5 GKFI DFH2/ CW 50+CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	125		EI 180	400 400 400	EI 180	510 580 610
SD-3x12.5 AKU DFH2IR/ CW 50+CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	125		EI 180	400 400 400	EI 180	510 580 610
SD-3x12.5 GKF DF/ CW 75+CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	150		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKFI DFH2/ CW 75+CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	150		EI 180	400 400 400	EI 180	650 650 650

Table 2, continued

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
							As per PN-EN 13501-2:2016-07		As per the criteria of PN-EN 13501-2:2016-07	
			Type/ thickness [mm]	Minimum surface density [kg/m²]			Fire resistance class	Maximum height [cm]	Fire resistance class	Maximum height [cm]
1	2		3	4	5	6	7	8	9	10
SD-3x12.5 AKU DFH2IR/ CW 75+CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	150	**1)**	EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKF DF/ CW 100+CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	175		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKFI DFH2/ CW 100+CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	175		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 AKU DFH2IR/ CW 100+CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	175		EI 180	400 400 400	EI 180	650 650 650

1) No filling or any mineral wool of the A1 reaction to fire class

NOTE: Taking into account the acoustic considerations, it is possible to use thicker mineral wool and gypsum plasterboards, and additional layers of boards.

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Table 3

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

SD-3x12.5 GKF DF/2xCW 50, SD-3x12.5 GKFI DFH2/2xCW 50, SD-3x12.5 AKU DFH2IR/2xCW 50,
SD-3x12.5 GKF DF/2xCW 75, SD-3x12.5 GKFI DFH2/2xCW 75, SD-3x12.5 AKU DFH2IR/2xCW 75,
SD-3x12.5 GKF DF/2xCW 100, SD-3x12.5 GKFI DFH2/2xCW 100, SD-3x12.5 AKU DFH2IR/2xCW 100

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
			Type/ thickness [mm]	Minimum surface density [kg/m²]			As per PN-EN 13501-2:2016-07		As per the criteria of 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
SD-3x12.5 GKF DF/2xCW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	180	No filling or any mineral wool of the A1 reaction to fire class	EI 180	400 400 400	EI 180	460 510 610
SD-3x12.5 GKFI DFH2/2xCW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	180		EI 180	400 400 400	EI 180	460 510 610
SD-3x12.5 AKU DFH2IR/2xCW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	180		EI 180	400 400 400	EI 180	460 510 610
SD-3x12.5 GKF DF/2xCW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	230		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKFI DFH2/2xCW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	230		EI 180	400 400 400	EI 180	650 650 650

Table 3, continued

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
							As per PN-EN 13501-2:2016-07		As per the criteria of PN-EN 13501-2:2016-07	
			Type/ thickness [mm]	Minimum surface density [kg/m²]			Fire resistance class	Maximum height [cm]	Fire resistance class	Maximum height [cm]
1	2		3	4	5	6	7	8	9	10
SD-3x12.5 AKU DFH2IR/2xCW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	230	1)	EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKF DF/2xCW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	280		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKFI DFH2/2xCW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	280		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 AKU DFH2IR/2xCW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	280		EI 180	400 400 400	EI 180	650 650 650

1) No filling or any mineral wool of the A1 reaction to fire class

NOTE: Taking into account the acoustic considerations, it is possible to use thicker mineral wool and gypsum plasterboards, and additional layers of boards.

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Table 4

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

SD-3x12.5 GKF DF/2xCW 50+CW 50, SD-3x12.5 GKFI DFH2/2xCW 50+CW 50, SD-3x12.5 AKU DFH2IR/2xCW 50+CW 50,
SD-3x12.5 GKF DF/2xCW 75+CW 75, SD-3x12.5 GKFI DFH2/2xCW 75+CW 75, SD-3x12.5 AKU DFH2IR/2xCW 75+CW 75,
SD-3x12.5 GKF DF/2xCW 100+CW 100, SD-3x12.5 GKFI DFH2/2xCW 100+CW 100, SD-3x12.5 AKU DFH2IR/2xCW 100+CW 100

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
							As per PN-EN 13501-2:2016-07		As per the criteria of PN-EN 13501-2:2016-07	
			Type/ thickness [mm]	Minimum surface density [kg/m²]			Fire resistance class	Maximum height [cm]	Fire resistance class	Maximum height [cm]
1	2		3	4	5	6	7	8	9	10
SD-3x12.5 GKF DF/ 2xCW 50 + CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	180	No filling or any mineral wool of the A1 reaction to fire class	EI 180	400 400 400	EI 180	530 610 640
SD-3x12.5 GKFI DFH2/ 2xCW 50 + CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	180		EI 180	400 400 400	EI 180	530 610 640
SD-3x12.5 AKU DFH2IR/ 2xCW 50 + CW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	180		EI 180	400 400 400	EI 180	530 610 640
SD-3x12.5 GKF DF/ 2xCW 75 + CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	230		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKFI DFH2/ 2xCW 75 + CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	230		EI 180	400 400 400	EI 180	650 650 650

Table 4, continued

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
							As per PN-EN 13501-2:2016-07		As per the criteria of PN-EN 13501-2:2016-07	
			Type/ thickness [mm]	Minimum surface density [kg/m²]			Fire resistance class	Maximum height [cm]	Fire resistance class	Maximum height [cm]
1	2		3	4	5	6	7	8	9	10
SD-3x12.5 AKU DFH2IR/ 2xCW 75 + CW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	230	1)	EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKF DF/ 2xCW 100 + CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	280		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 GKFI DFH2/ 2xCW 100 + CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	280		EI 180	400 400 400	EI 180	650 650 650
SD-3x12.5 AKU DFH2IR/ 2xCW 100 + CW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	280		EI 180	400 400 400	EI 180	650 650 650

1) No filling or any mineral wool of the A1 reaction to fire class

NOTE: Taking into account the acoustic considerations, it is possible to use thicker mineral wool and gypsum plasterboards, and additional layers of boards.

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Table 5

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

SDI-3x12.5 GKF DF/2xCW 50, SDI-3x12.5 GKFI DFH2/2xCW 50, SDI-3x12.5 AKU DFH2IR/2xCW 50,
SDI-3x12.5 GKF DF/2xCW 75, SDI-3x12.5 GKFI DFH2/2xCW 75, SDI-3x12.5 AKU DFH2IR/2xCW 75,
SDI-3x12.5 GKF DF/2xCW 100, SDI-3x12.5 GKFI DFH2/2xCW 100, SDI-3x12.5 AKU DFH2IR/2xCW 100

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
			Type/ thickness [mm]	Minimum surface density [kg/m²]			As per PN-EN 13501-2:2016-07		As per the criteria of 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
SDI-3x12.5 GKF DF/2xCW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	Up to 280	No filling or any mineral wool of the A1 reaction to fire class	EI 180	400 400 400	EI 180	510 560 650
SDI-3x12.5 GKFI DFH2/2xCW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	Up to 280		EI 180	400 400 400	EI 180	510 560 650
SDI-3x12.5 AKU DFH2IR/2xCW 50	CW 50, UW 50	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	Up to 280		EI 180	400 400 400	EI 180	510 560 650
SDI-3x12.5 GKF DF/2xCW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	Up to 330		EI 180	400 400 400	EI 180	650 650 650
SDI-3x12.5 GKFI DFH2/2xCW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	Up to 330		EI 180	400 400 400	EI 180	650 650 650

Table 5, continued

Identification symbol of a Norgips partition wall	Type of profiles	Maximum distance between CW profiles [cm]	Type of gypsum plasterboard cladding		Total thickness of the wall [mm]	Filling with mineral wool	Fire resistance classification of the wall			
							As per PN-EN 13501-2:2016-07		As per the criteria of PN-EN 13501-2:2016-07	
			Type/ thickness [mm]	Minimum surface density [kg/m²]			Fire resistance class	Maximum height [cm]	Fire resistance class	Maximum height [cm]
1	2		3	4	5	6	7	8	9	10
SDI-3x12.5 AKU DFH2IR/2xCW 75	CW 75, UW 75	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	Up to 330	1)	EI 180	400 400 400	EI 180	650 650 650
SDI-3x12.5 GKF DF/2xCW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DF; 3x12.5	10.1	Up to 380		EI 180	400 400 400	EI 180	650 650 650
SDI-3x12.5 GKFI DFH2/2xCW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2; 3x12.5	10.1	Up to 380		EI 180	400 400 400	EI 180	650 650 650
SDI-3x12.5 AKU DFH2IR/2xCW 100	CW 100, UW 100	60/62.5 40/41.7 30/31.3	DFH2IR; 3x12.5	11.1	Up to 380		EI 180	400 400 400	EI 180	650 650 650

1) No filling or any mineral wool of the A1 reaction to fire class

NOTE: Taking into account the acoustic considerations, it is possible to use thicker mineral wool and gypsum plasterboards, and additional layers of boards.

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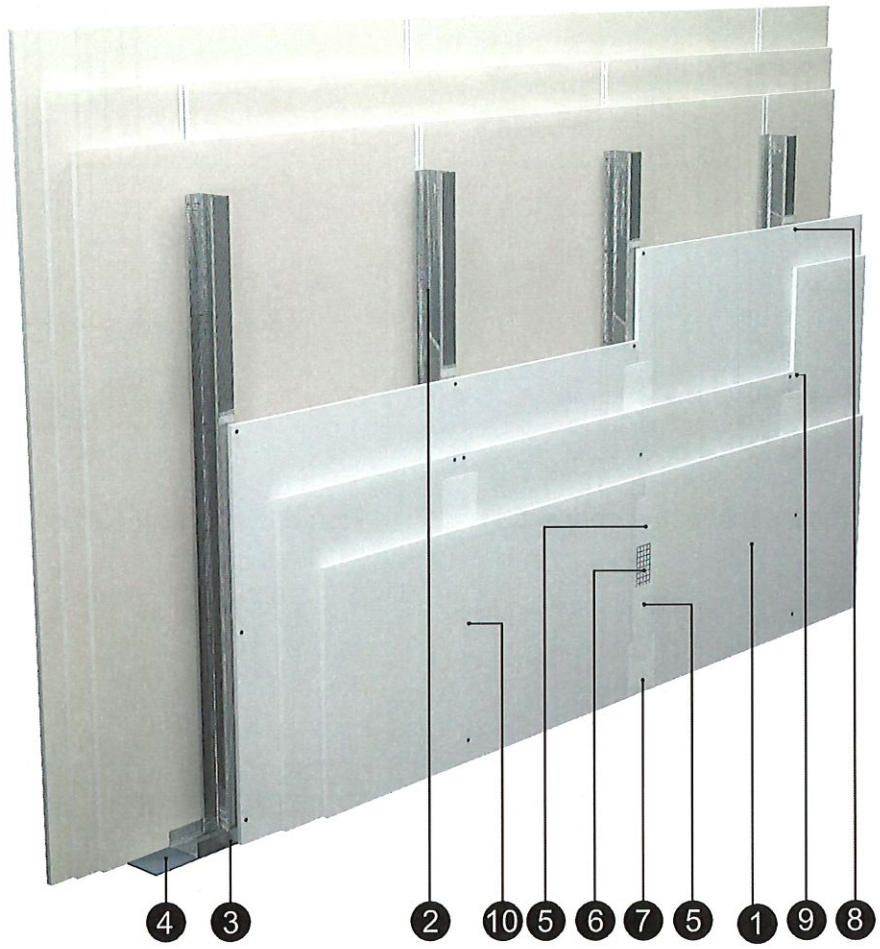

Figure 1 – view of the wall

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips UW 50/UW 75/ UW 100 made of at least 0.55 mm thick steel sheet
4. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
5. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler
6. Self-adhesive reinforcing tape made of glass fibre or interlining
7. Ready to use filling mass Norgips or gypsum plaster jointing compound Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler
8. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
9. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
10. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm

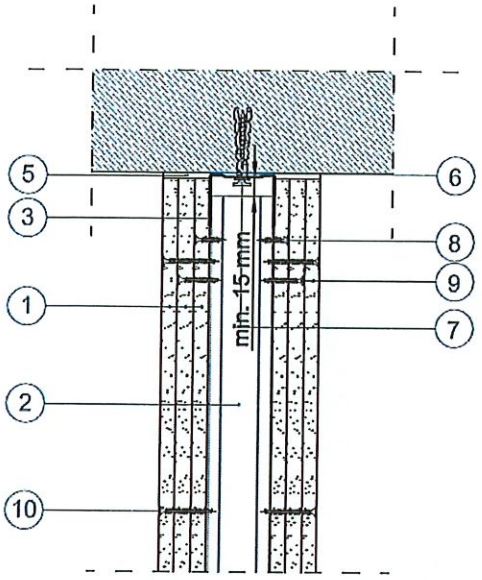

Figure 2 – vertical section, top connection

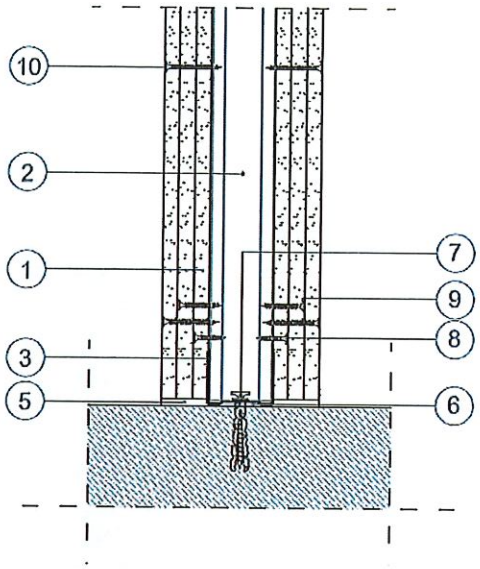

Figure 3 – vertical section, bottom connection

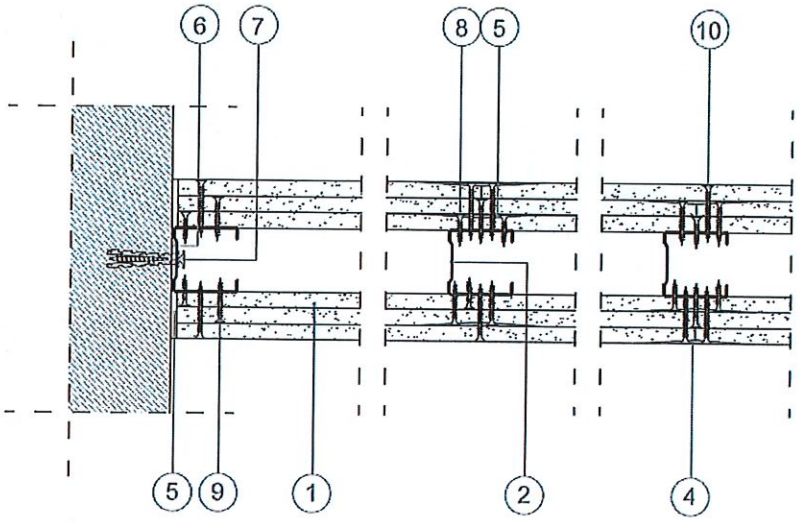

Figure 4 – horizontal section

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips UW 50/UW 75/ UW 100 made of at least 0.55 mm thick steel sheet
4. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler + self-adhesive reinforcing tape made of glass fibre or interlining
5. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler
6. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
7. Mechanical connector, e.g. wall plug, dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
8. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
9. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
10. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm

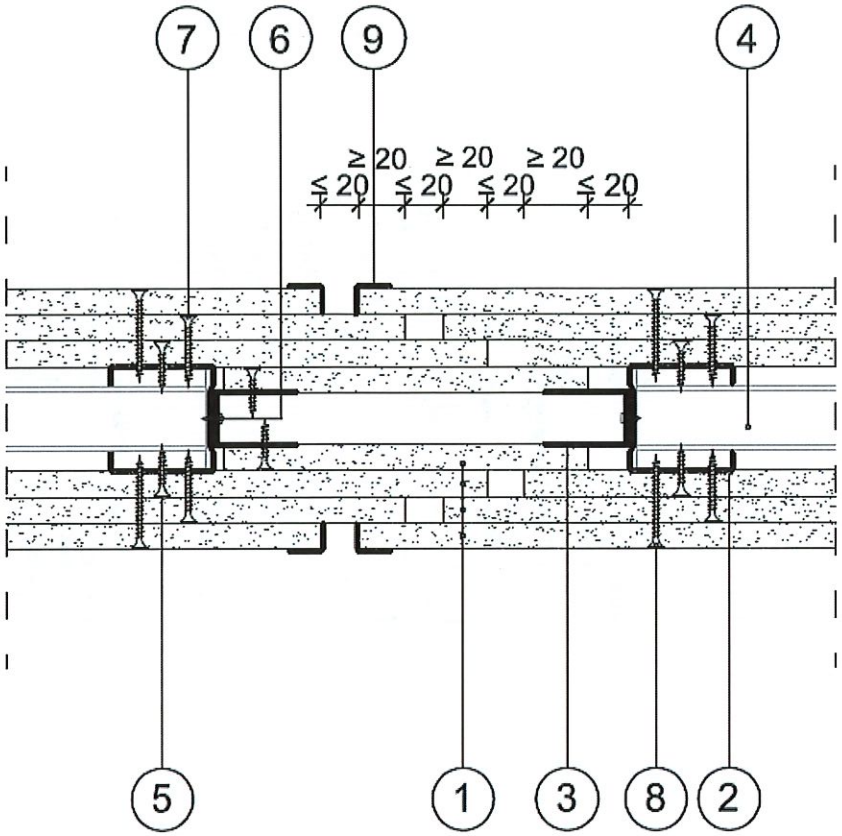

Figure 5 – expansion joints

Symbols:

1. 12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet
3. Angle elements 2xL 25x50/2xL 50x50/2xL 75x50 made of at least 0.55 mm thick steel sheet, screwed to profiles CW 50/CW 75/CW 100 by means of screws Ø3.5 x 9.5 mm with self-drilling ends placed maximally every 40 cm
4. Profiles e.g. Norgips UW 50/UW 75/ UW 100 made of at least 0.55 mm thick steel sheet
5. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
6. Screws e.g. Norgips Ø3.5 x 9.5 mm with self-drilling ends placed maximally every 40 cm
7. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
8. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
9. Corner for gypsum plasterboards

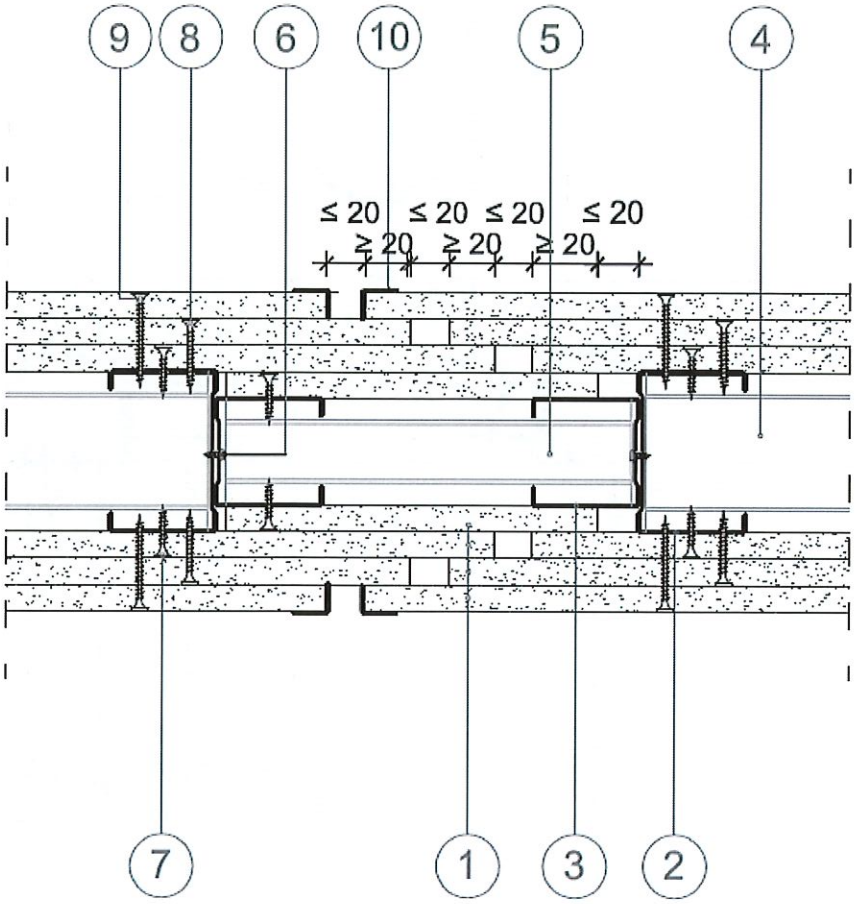

Figure 6 – expansion joints

Symbols:

1. 12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 75/CW 100 made of at least 0.55 mm thick steel sheet
3. Profiles e.g. Norgips CW 50/CW 75 made of at least 0.55 mm thick steel sheet
4. Profiles e.g. Norgips UW 75/UW 100 made of at least 0.55 mm thick steel sheet
5. Profiles e.g. Norgips UW 50/UW 75 made of at least 0.55 mm thick steel sheet
6. Screws e.g. Norgips Ø3.5 x 9.5 mm with self-drilling ends placed maximally every 40 cm
7. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
8. Screws e,g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
9. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
10. Corner for gypsum plasterboards

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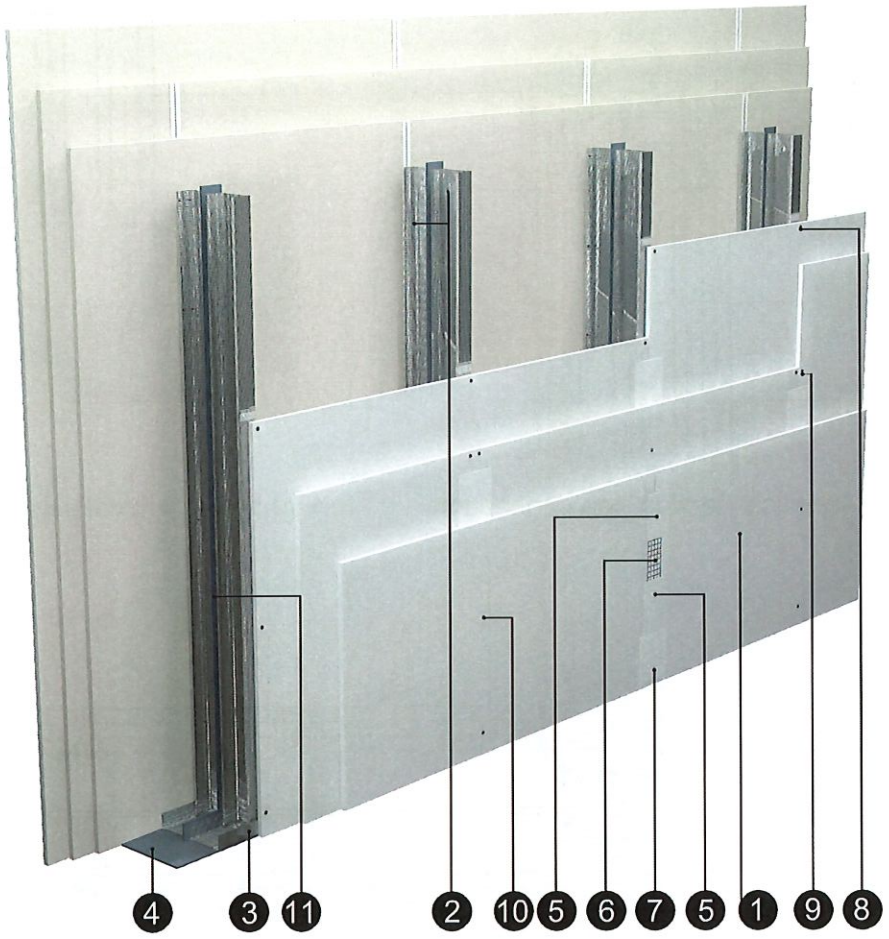

Figure 7 – view of the wall

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, fixed in two rows, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips UW 50/UW 75/ UW 100 made of at least 0.55 mm thick steel sheet, fixed in two rows
4. Sealing tape Norgips, width 50 mm/75 mm/100 mm
5. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler
6. Self-adhesive reinforcing tape made of glass fibre or interlining
7. Ready to use filling mass Norgips or gypsum plaster jointing compound Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler
8. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
9. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
10. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm

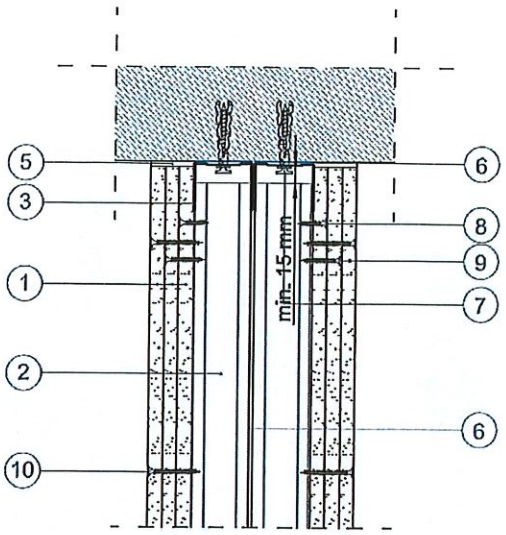

Figure 8 – vertical section, top connection

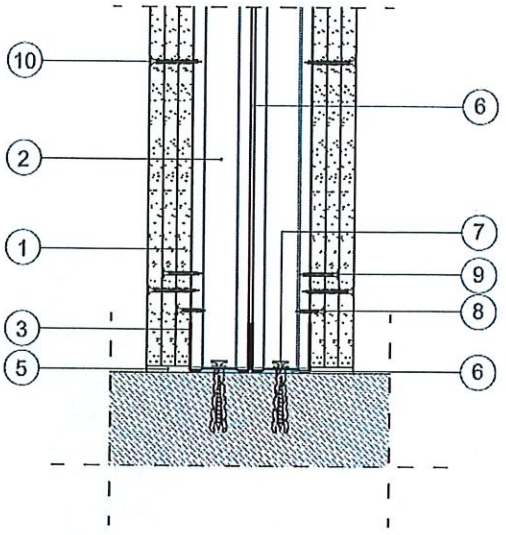

Figure 9 – vertical section, bottom connection

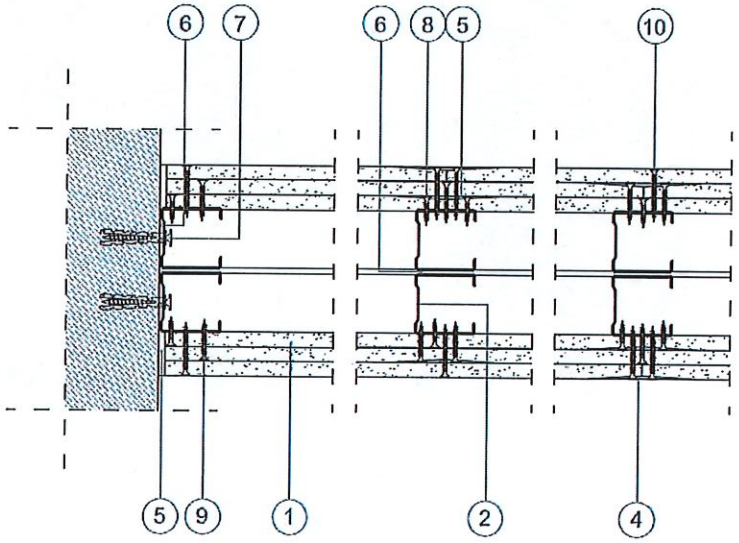

Figure 10 – horizontal section

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips UW 50/UW 75/ UW 100 made of at least 0.55 mm thick steel sheet
4. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler + self-adhesive reinforcing tape made of glass fibre or interlining
5. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler
6. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
7. Mechanical connector, e.g. wall plug, dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
8. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
9. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
10. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm

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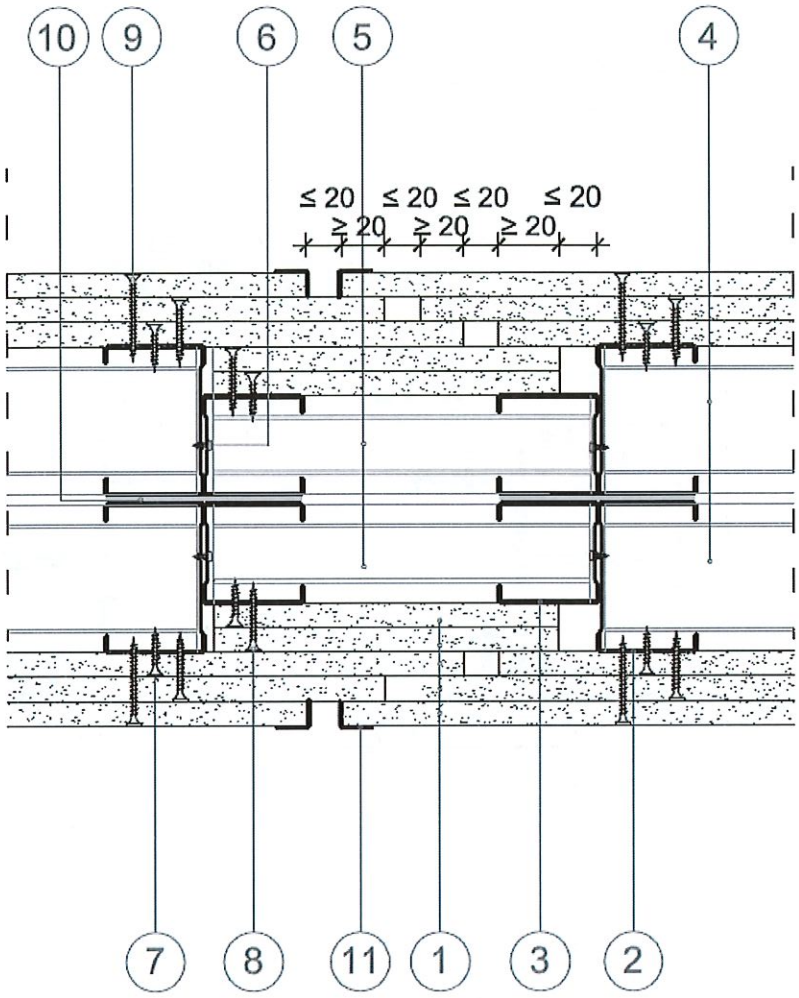

Figure 11 – expansion joints

Symbols:

1. 12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 75/CW 100 made of at least 0.55 mm thick steel sheet
3. Profiles e.g. Norgips CW 50/CW 75 made of at least 0.55 mm thick steel sheet
4. Profiles e.g. Norgips UW 75/UW 100 made of at least 0.55 mm thick steel sheet
5. Profiles e.g. Norgips UW 50/UW 75 made of at least 0.55 mm thick steel sheet
6. Screws e.g. Norgips Ø3.5 x 9.5 mm with self-drilling ends placed maximally every 40 cm
7. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
8. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
9. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
10. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
11. Corner for gypsum plasterboards

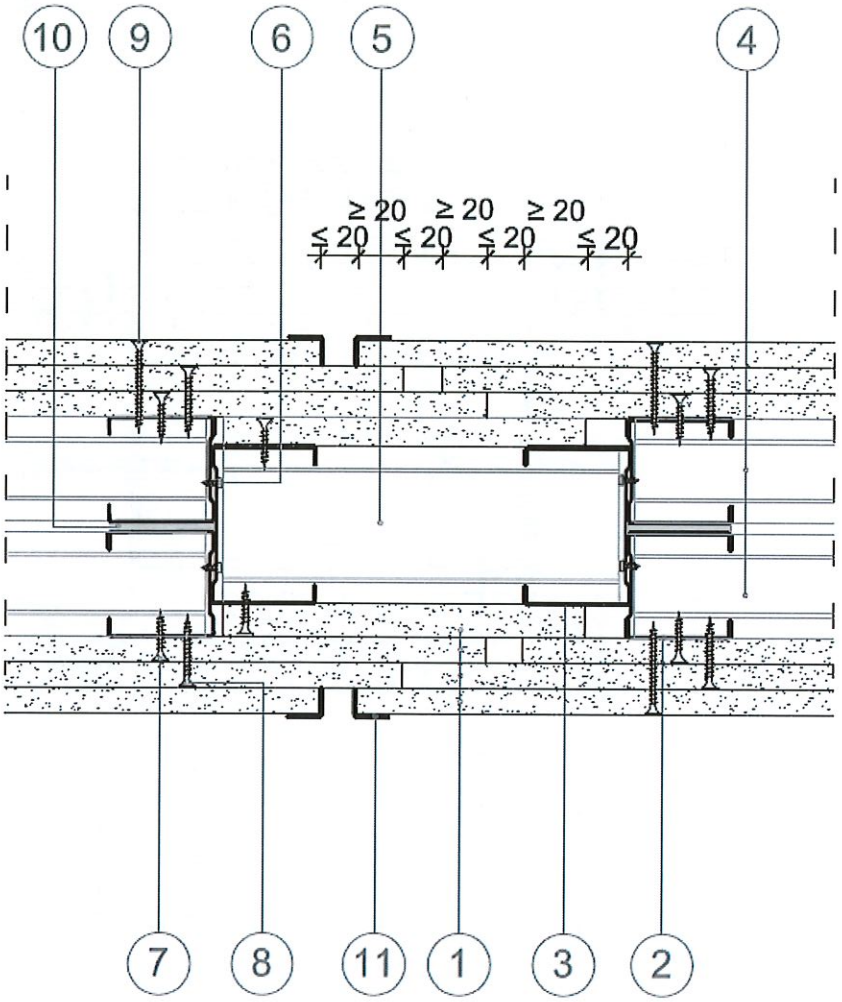

Figure 12 – expansion joints

Symbols:

1. 12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75 made of at least 0.55 mm thick steel sheet
3. Profiles e.g. Norgips CW 75/CW 100 made of at least 0.55 mm thick steel sheet
4. Profiles e.g. Norgips UW 50/UW 75 made of at least 0.55 mm thick steel sheet
5. Profiles e.g. Norgips UW 75/UW 100 made of at least 0.55 mm thick steel sheet
6. Screws e.g. Norgips Ø3.5 x 9.5 mm with self-drilling ends placed maximally every 40 cm
7. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
8. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
9. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
10. Sealing tape e.g. Norgips, width 50 mm
11. Corner for gypsum plasterboards

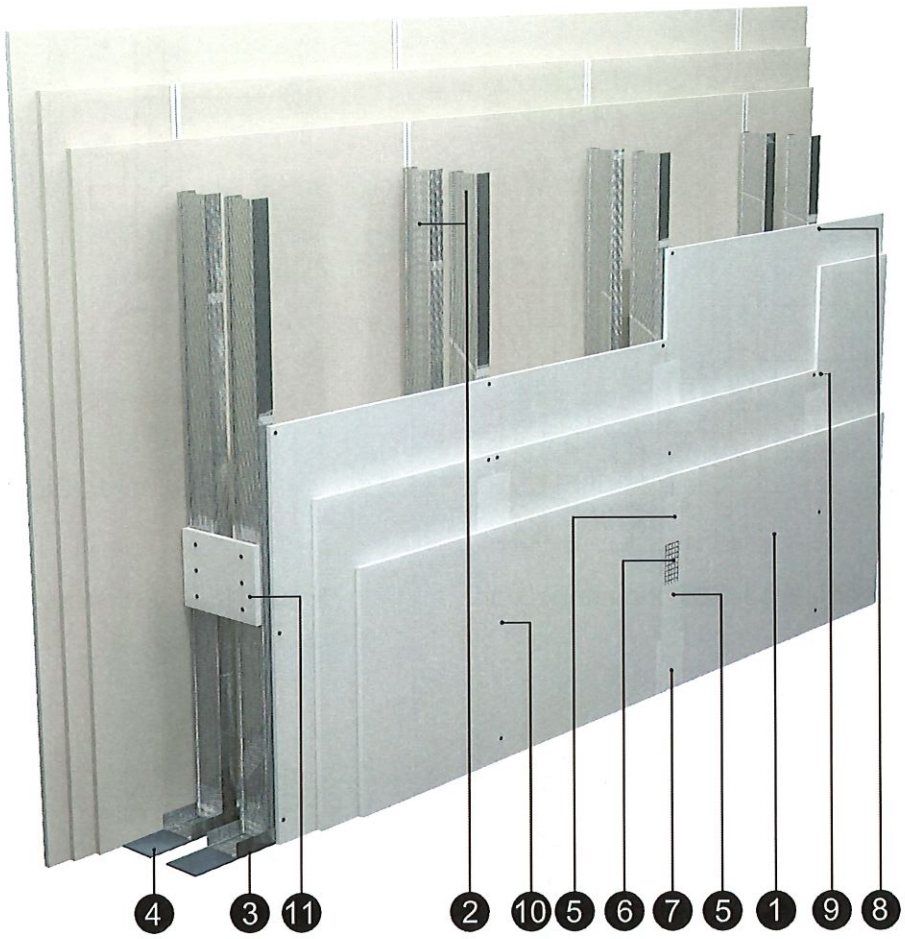

Figure 13 – view of the wall

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, fixed in two rows, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips UW 50/UW 75/ UW 100 made of at least 0.55 mm thick steel sheet, fixed in two rows
4. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
5. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler
6. Self-adhesive reinforcing tape made of glass fibre or interlining
7. Ready to use filling mass Norgips or gypsum plaster jointing compound Norgips Extra Finish, Norgips Start & Finish, Norgips Finish or Norgips Strong Filler
8. Screws Norgips Ø3.5 x 25 mm placed maximally every 75 cm
9. Screws Norgips Ø3.5 x 35 mm placed maximally every 50 cm
10. Screws Norgips Ø3.5 x 55 mm placed maximally every 25 cm
11. Crosspiece made of 12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR

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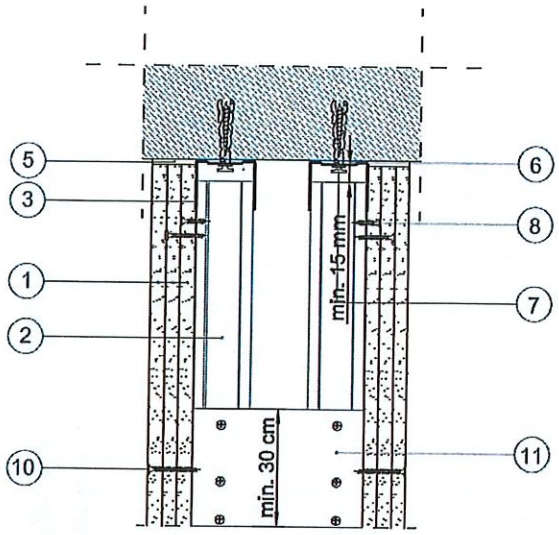

Figure 14 – vertical section, top connection

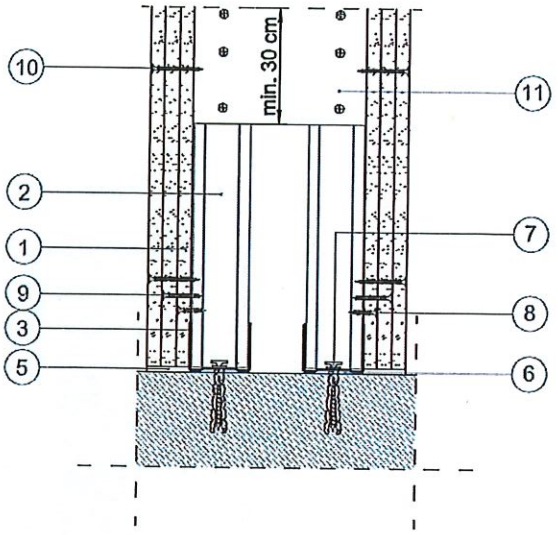

Figure 15 – vertical section, bottom connection

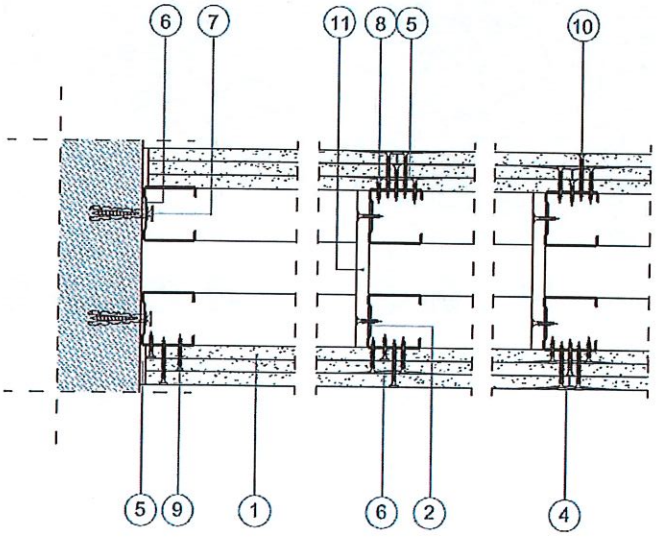

Figure 16 – horizontal section

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips UW 50/UW 75/ UW 100 made of at least 0.55 mm thick steel sheet
4. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler+ self-adhesive reinforcing tape made of glass fibre or interlining
5. Gypsum plaster jointing compound e.g. Norgips Start, Norgips Super Filler or Norgips Strong Filler
6. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
7. Mechanical connector, e.g. wall plug, dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
8. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
9. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
10. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
11. Crosspiece made of 12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR

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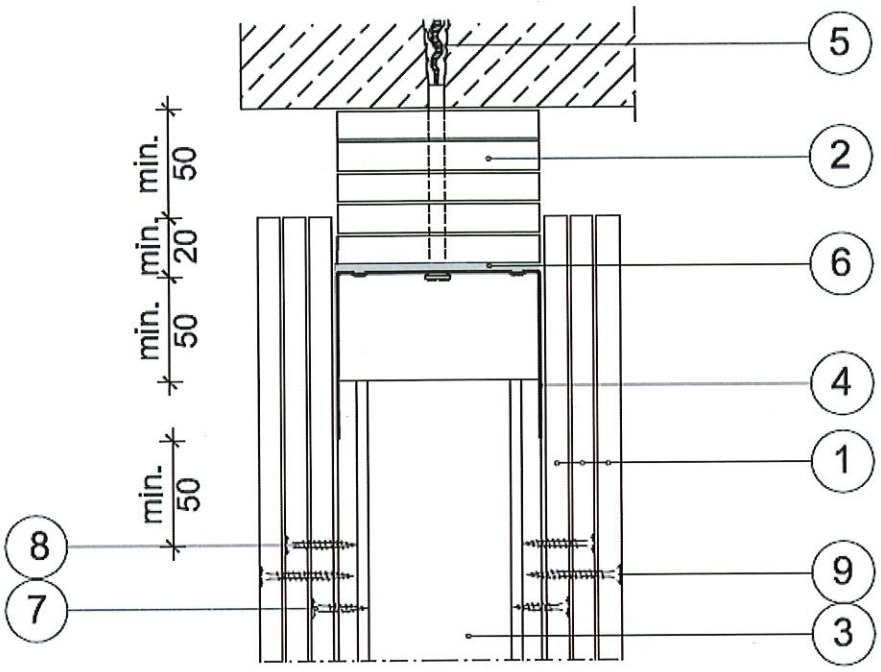

Figure 17 – vertical section

Telescopic connection between the wall and a non-fire spreading ceiling, when the deflection of the ceiling is up to 50 mm

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Strips of 5x15 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2
3. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
4. Profiles e.g. Norgips U 50 x 100/U 75x100/U 100x100 or angle elements 2xL 50x100/2xL 75x100/2xL 100x100 made of at least 1 mm thick steel sheet
5. Mechanical connector, e.g. wall plug, dowel minimum Ø8 x 120 mm, placed maximally every 80 cm
6. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
7. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
8. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
9. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm

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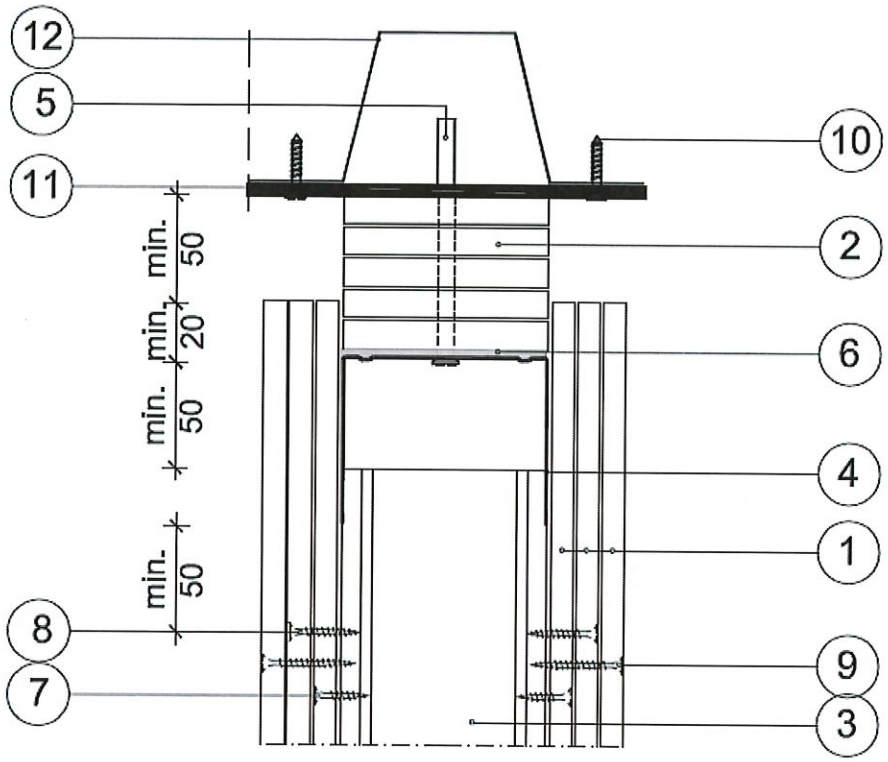

Figure 18 – vertical section

Telescopic connection between the wall and non-fire spreading roof covering, when the deflection of the roof is up to 50 mm

Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Strips of 5x15 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2
3. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
4. Profiles e.g. Norgips U 50 x 100/U 75x100/U 100x100 or angle elements 2xL 50x100/2xL 75x100/2xL 100x100 made of at least 1 mm thick steel sheet
5. Mechanical connector, e.g. wall plug, dowel minimum Ø8 x 120 mm, placed maximally every 80 cm
6. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
7. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
8. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
9. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
10. Mechanical connector
11. Strip of at least 3 mm thick steel sheet
12. Trapezoid steel sheet

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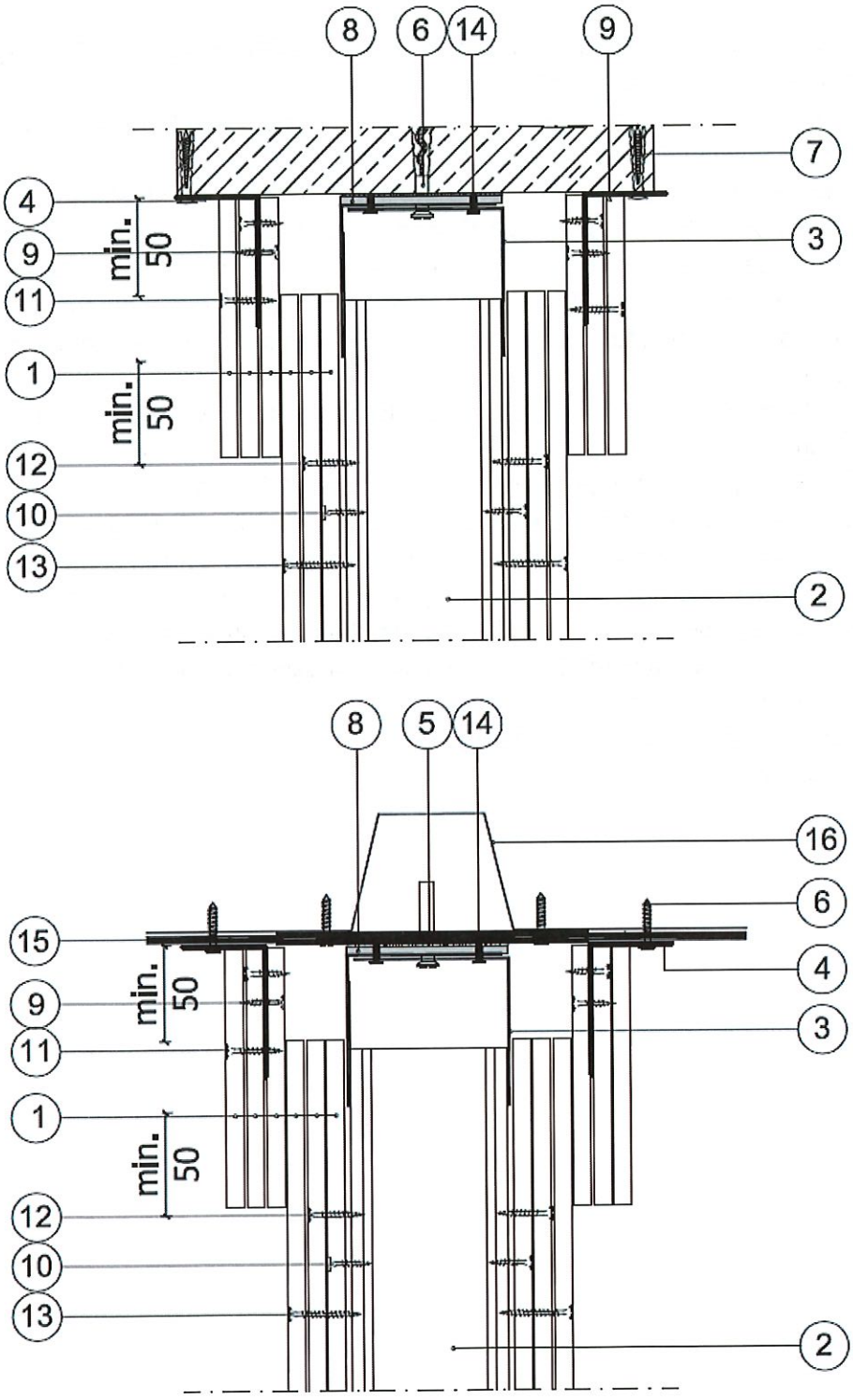

Figure 19 – vertical section

Telescopic connection between the wall and non-fire spreading ceiling or roof covering, when the deflection of the ceiling or roof is up to 50 mm

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Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips U 50 x 100/U 75x100/U 100x100 or steel angle elements 2xL 50x100/2xL 75x100/2xL 100x100 made of at least 1 mm thick steel sheet
4. Steel angle elements L 50x80 made of at least 1 mm thick steel sheet
5. Steel dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
6. Mechanical connector, e.g. wall plug, dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
7. Mechanical connector, e.g. wall plug, dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
8. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
9. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 50 cm
10. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
11. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 25 cm
12. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
13. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
14. Mechanical connector
15. Strip of at least 3 mm thick steel sheet
16. Trapezoid steel sheet

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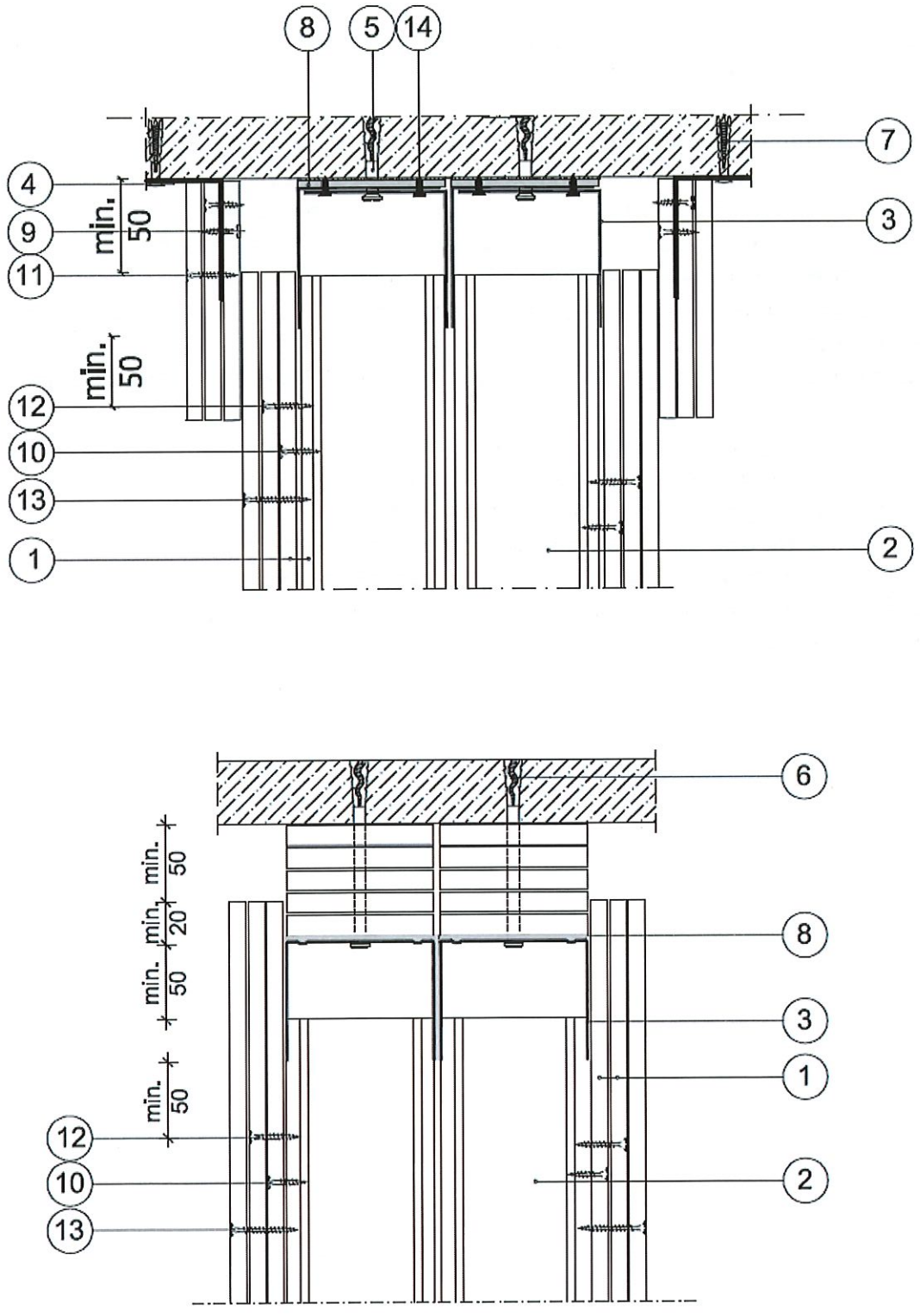

Figure 20 – vertical section

Telescopic connection between the wall and non-fire spreading ceiling or roof covering, when the deflection of the ceiling or roof is up to 50 mm

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Symbols:

1. 3x12.5 mm thick gypsum plasterboard Norgips GKF type DF or GKFI type DFH2 or Acoustic Super type DFH2IR
2. Profiles e.g. Norgips CW 50/CW 75/CW 100 made of at least 0.55 mm thick steel sheet, placed maximally every 60 cm or 62.5 cm
3. Profiles e.g. Norgips U 50 x 100/U 75x100/U 100x100 or steel angle elements 2xL 50x100/2xL 75x100/2xL 100x100 made of at least 1 mm thick steel sheet
4. Steel angle elements L 50x80 made of at least 1 mm thick steel sheet
5. Steel dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
6. Mechanical connector, e.g. wall plug, dowel minimum Ø8 x 120 mm, placed maximally every 80 cm
7. Mechanical connector, e.g. wall plug, dowel minimum Ø6 x 40 mm, placed maximally every 80 cm
8. Sealing tape e.g. Norgips, width 50 mm/75 mm/100 mm
9. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 50 cm
10. Screws e.g. Norgips Ø3.5 x 25 mm placed maximally every 75 cm
11. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 25 cm
12. Screws e.g. Norgips Ø3.5 x 35 mm placed maximally every 50 cm
13. Screws e.g. Norgips Ø3.5 x 55 mm placed maximally every 25 cm
14. Mechanical connector

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