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, e-mail: contact@gryfitlab.com

Fire resistance classification No. LBO – 077 – KZ/26E

Classified product:

Wooden roofs with cladding made of gypsum plasterboards Norgips GKB type A + GKF type DF, Norgips Acoustic typu A + GKF typu DF,Norgips GKBI type H2 + GKFI type DFH2, Norgips GKB type A + Acoustic Super type DFH2IRE and Norgips GKBI type H2 + Acoustic Super type DFH2IRE

Sponsor:

Norgips Sp. z o.o.
ul. Krakowiaków 50
02-255 Warszawa

Prepared by:

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

Place and date of issue:

Łozienica, 29.05.2026

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 1365-2:2014-12 Fire resistance tests for loadbearing elements – Part 2: Floors and roofs.
1.2. Standard PN-EN 1363-1:2020-07 Fire resistance tests – Part 1: General requirements.
1.3. Standard PN-EN 13501-2: 2023-09 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 520+A1:2012 Gypsum plasterboards. Definitions, requirements and test methods.
1.5. Report No. LZP01-03529/20/Z00NZP Roof type ZP – 2 x 12.5 GKB A + GKF DF/CD 60 W 20, with the roof pitch angle of 30 degrees. Fire resistance test. Building Research Institute (Instytut Techniki Budowlanej), Warsaw 2021.
1.6. Report No. LZP02-03529/20/Z00NZP Roof type ZP – 2 x 12.5 GKB A + GKF DF/CD 60 W 20, with the roof pitch angle of 30 degrees. Fire resistance test. Building Research Institute (Instytut Techniki Budowlanej), Warsaw 2021.
1.7. Test report no. LBO-1587/21 Suspended ceiling SP – 2x12.5 GKB A + GKF DF CD 60, S. Fire Research Laboratory, GRYFITLAB Spółka z o.o., Łozienica 2021.
1.8. Technical documentation provided by Norgips Sp. z o.o.

2. Technical description of the roof casing made using the Norgips cladidng system (12.5 mm thick gypsum plasterboards Norgips GKB type A + GKF type DF, Norgips Acoustic typu A + GKF typu DF, Norgips GKBI type H2 + GKFI type DFH2, Norgips GKB type A + Acoustic Super type DFH2IRE and Norgips GKBI type H2 + Acoustic Super type DFH2IRE)

2.1 Roof casing ZP-2x12.5 GKB type A + GKF DF/CD 60 ES W,
ZP-2x12,5 Acoustic typu A + GKF DF/CD 60 ES W,
ZP-2x12.5 GKBI type H2 + GKFI DFH2/CD 60 ES W,
ZP-2x12.5 GKB type A + DFH2IRE/CD 60 ES W,
ZP-2x12.5 GKBI type H2 + DFH2IRE/CD 60 ES W,
ZP-2x12.5 GKB type A + GKF DF/CD 60 L W,
ZP-2x12,5 Acoustic typu A + GKF DF/CD 60 L W,
ZP-2x12.5 GKBI type H2 + GKFI DFH2/CD 60 L W,
ZP-2x12.5 GKB type A + DFH2IRE/CD 60 L W,
ZP-2x12.5 GKBI type H2 + DFH2IRE/CD 60 L W, with cladding made of 12.5 mm thick gypsum plasterboards Norgips GKB type A + GKF type DF or Norgips Acoustic typu A + GKF typu DF or Norgips GKBI type H2 + GKFI type DFH2 or Norgips GKB type A + Acoustic Super type DFH2IRE or Norgips GKBI type H2 + Acoustic Super type DFH2IRE, and placed on the framework made of profiles CD 60

The roof casing is built on wooden elements of the rafter framing. The constructional elements of the rafter framing are designed according to Polish Standards and can be placed maximally every **100 cm.** One can apply any underlayment and cover of the roof, which are consistent with Polish Standards. The framework of the roof casing is made of profiles **CD 60** e.g. Norgips which were made of cold bent galvanized steel (the nominal thickness of the steel used: **0.55 mm** or **0.6 mm**). Profiles **CD 60** are fixed to wooden beams (e.g. rafters); the beams are placed maximally every **100 cm** and this distance is measured between the axes of the adjacent beams. The CD 60 profiles are fixed to the beams by means of hangers type **ES 60/75, ES 60/125, ES 60/60 plus, ES 60/120 plus**

e.g. Norgips or **flat** hangers **type L-180, L-270, L-350** e.g. Norgips fixed to wooden beams by means of screws for wood **Ø 3.5 x 35 mm** – two screws are applied per each joint. Profiles **CD 60** are connected with hangers type **ES** or **ES plus** by means of screws **Ø 3.5 x 9.5 mm** e. g. Norgips or **Ø 3.5 x 11 mm** e. g. Norgips – four screws are applied per each hanger. **Flat** hangers **type L** are connected with profiles **CD 60** in such a way that they are slid into the inside of profiles CD 60 and locked therein. The maximum distance between profiles **CD 60**, as measured between the axes of the adjacent profiles, cannot exceed **40 cm**.

The first layer of **12.5 mm thick** boards **Norgips GKB type A** or **Norgips Acoustik typu A** or **Norgips GKBI type H2** is fixed perpendicularly to profiles **CD 60** using system screws **Ø3.5 x 25 mm** placed maximally every **40 cm.** The shorter edges of the boards of the first layer are shifted in relation to one another by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of profiles **CD 60**. The second layer of **12.5 mm thick** boards **Norgips GKF type DF** or **12.5 mm thick** boards **Norgips GKFI type DFH2** or **12.5 mm thick** boards **Norgips Acoustic Super type DFH2IRE** is fixed perpendicularly to profiles **CD 60** using system screws **Ø3.5 x 35 mm** placed maximally every **17 cm.** The shorter edges of the boards of the second layer are shifted in relation to one another and in relation to the shorter edges of the boards of the first layer by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of profiles **CD 60**. The longer edges of the boards of the second layer are shifted in relation to the longer edges of the boards of the first layer by at least **40 cm**.

The space between the beams is filled with **mineral glass wool** of the A1 or A2 class of reaction to fire or with **mineral rock wool** of any thickness and the A1 or A2 class of reaction to fire. The self-weight load of mineral wool cannot be less than **0.1 kN/m^3**. Space can also be an air void.

In the roof and in the Norgips roof casing it is permitted to use roof foil, or wind protection insulation and vapour insulation.

Screw heads and connections between **12.5 mm** thick boards **Norgips GKB type A** or **Norgips Acoustik typu A** or **Norgips GKBI type H2** or **Norgips GKF type DF** or **Norgips GKFI type DFH2** or **Norgips Acoustic Super type DFH2IRE** are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler** or ready mix **Norgips Start & Finish (Norgips Light Ready Mix)**, while the connections in the second layer of the boards are additionally reinforced with self-adhesive reinforcing tape Norgips made of glass fibre or with reinforcing tape made of interlining. For final covering, it is recommended to use ready mix e.g. **Norgips Extra Finish**, **Norgips Start & Finish (Norgips Light Ready Mix), Norgips Finish Mega (Norgips Easy Finish)** or gypsum finish **Norgips Finish**.

Constructional details of the roof casing made of **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A type + GKF type DF** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips Acoustic typu A + GKF typu DF or or 2 x 12.5 mm thick gypsum plasterboards Norgips GKBI type H2 + GKFI type DFH2** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A + Acoustic Super type DFH2IRE** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKBI type H2 + Acoustic Super type DFH2IRE** are presented in **Figures 1 ÷ 4.**

2.2 Roof casing ZP-2x12.5 GKB type A + GKF DF/KAPEL W, ZP-2x12,5 Acoustic typu A + GKF DF/KAPEL W, ZP-2x12.5 GKBI type H2 + GKFI DFH2/KAPEL W, ZP-2x12.5 GKB type A + DFH2IRE/KAPEL, ZP-2x12.5 GKBI type H2 + DFH2IRE/KAPEL W, with cladding made of 12.5 mm thick gypsum plasterboards Norgips GKB type A + GKF type DF or Norgips Acoustic typu A + GKF typu DF or Norgips GKBI type H2 + GKFI type DFH2 or Norgips GKB type A + Acoustic Super type DFH2IRE or Norgips GKBI type H2 + Acoustic Super type DFH2IRE, and placed on the framework made of hat profiles

The roof casing is built on wooden elements of the rafter framing. The constructional elements of the rafter framing are designed according to Polish Standards and can be placed maximally every **100 cm.** One can apply any underlayment and cover of the roof, which are consistent with Polish Standards. The framework of the roof casing is made of **hat** profiles e.g. Norgips which were made of cold bent galvanized steel (the nominal thickness of the steel used: **0.55 mm** or **0.6 mm**). **Hat** profiles are fixed directly to wooden beams (e.g. rafters); the beams are placed maximally every **100 cm** and this distance is measured between the axes of the adjacent beams. The hat profiles are fixed to the beams by means of screws for wood **Ø 3.5 x 35 mm** – two screws are applied per each joint. The maximum distance between **hat** profiles, as measured between the axes of the adjacent profiles, cannot exceed **40 cm**.

The first layer of **12.5 mm thick** boards **Norgips GKB type A** or **Norgips Acoustik typu A** or **Norgips GKBI type H2** is fixed perpendicularly to **hat** profiles using system screws **Ø3.5 x 25 mm** placed maximally every **40 cm.** The shorter edges of the boards of the first layer are shifted in relation to one another by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of **hat** profiles. The second layer of **12.5 mm thick** boards **Norgips GKF type DF** or **12.5 mm thick** boards **Norgips GKFI type DFH2** or **12.5 mm thick** boards **Norgips Acoustic Super type DFH2IRE** is fixed perpendicularly to **hat** profiles using system screws **Ø3.5 x 35 mm** placed maximally every **17 cm.** The shorter edges of the boards of the second layer are shifted in relation to one another and in relation to the shorter edges of the boards of the first layer by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of **hat** profiles. The longer edges of the boards of the second layer are shifted in relation to the longer edges of the boards of the first layer by at least **40 cm**.

The space between the beams is filled with **mineral glass wool** of the A1 or A2 class of reaction to fire or with **mineral rock wool** of any thickness and the A1 or A2 class of reaction to fire. The self-weight load of mineral wool cannot be less than **0.1 kN/m^3**. Space can also be an air void.

In the roof and in the Norgips roof casing it is permitted to use roof foil, or wind protection insulation and vapour insulation.

Screw heads and connections between **12.5 mm** thick boards **Norgips GKB type A** or **Norgips Acoustik typu A** or **Norgips GKBI type H2** or **Norgips GKF type DF** or **Norgips GKFI type DFH2** or **Norgips Acoustic Super type DFH2IRE** are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler** or ready mix **Norgips Start & Finish (Norgips Light Ready Mix)**, while the connections in the second layer of the boards are additionally reinforced with self-adhesive reinforcing tape Norgips made of glass fibre or with reinforcing tape made of interlining. For final

covering, it is recommended to use ready mix e.g. **Norgips Extra Finish**, **Norgips Start & Finish (Norgips Light Ready Mix), Norgips Finish Mega (Norgips Easy Finish)** or gypsum finish **Norgips Finish**.

Constructional details of the roof casing made of **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A + GKF type DF** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips Acoustic type A + GKF type DF** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKBI type H2 + GKFI type DFH2** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A + Acoustic Super type DFH2IRE** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKBI type H2 + Acoustic Super type DFH2IRE** are presented in **Figures 5 ÷ 6.**

2.3 Roof casing ZP-2x12.5 GKB type A + GKF DF/CD 60 ES PUR, ZP-2x12,5 Acoustic typu A + GKF DF/CD 60 ES PUR,

ZP-2x12.5 GKBI type H2 + GKFI DFH2/CD 60 ES PUR,
ZP-2x12.5 GKB type A + DFH2IRE/CD 60 ES PUR,
ZP-2x12.5 GKBI type H2 + DFH2IRE/CD 60 ES PUR,
ZP-2x12.5 GKB type A + GKF DF/CD 60 L PUR,
ZP-2x12.5 Acoustic type A + GKF DF/CD 60 L PUR,
ZP-2x12.5 GKBI type H2 + GKFI DFH2/CD 60 L PUR,
ZP-2x12.5 GKB type A + DFH2IRE/CD 60 L W,
ZP-2x12.5 GKBI type H2 + DFH2IRE/CD 60 L W, with cladding made of 12.5 mm thick gypsum plasterboards Norgips GKB type A + GKF type DF or Norgips GKBI type H2 + GKFI type DFH2 or Norgips GKB type A + Acoustic Super type DFH2IRE or Norgips GKBI type H2 + Acoustic Super type DFH2IRE, and placed on the framework made of profiles CD 60

The roof casing is built on wooden elements of the rafter framing. The constructional elements of the rafter framing are designed according to Polish Standards and can be placed maximally every **100 cm.** One can apply any underlayment and cover of the roof, which are consistent with Polish Standards. The framework of the roof casing is made of profiles **CD 60** e.g. Norgips which were made of cold bent galvanized steel (the nominal thickness of the steel used: **0.55 mm** or **0.6 mm**). Profiles **CD 60** are fixed to wooden beams (e.g. rafters); the beams are placed maximally every **100 cm** and this distance is measured between the axes of the adjacent beams. The CD 60 profiles are fixed to the beams by means of hangers type **ES 60/75, ES 60/125, ES 60/60 plus, ES 60/120 plus** e.g. Norgips or **flat** hangers **type L-180, L-270, L-350** e.g. Norgips fixed to wooden beams by means of screws for wood **Ø 3.5 x 35 mm** – two screws are applied per each joint. Profiles **CD 60** are connected with hangers type **ES** or **ES plus** by means of screws **Ø 3.5 x 9.5 mm** e.g. Norgips or **Ø 3.5 x 11 mm** e.g. Norgips – four screws are applied per each hanger. **Flat** hangers **type L** are connected with profiles **CD 60** in such a way that they are slid into the inside of profiles CD 60 and locked therein. The maximum distance between profiles **CD 60**, as measured between the axes of the adjacent profiles, cannot exceed **40 cm**.

The first layer of **12.5 mm thick** boards **Norgips GKB type A** or **Norgips Acoustik typu A** or **Norgips GKBI type H2** is fixed perpendicularly to profiles **CD 60** using system screws **Ø3.5 x 25 mm** placed maximally every **40 cm.** The shorter edges of the boards of the first layer are shifted in relation to one another by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of profiles **CD 60**. The second layer of **12.5 mm thick**

boards **Norgips GKF type DF** or **12.5 mm thick** boards **Norgips GKFI type DFH2** or **12.5 mm thick** boards **Norgips Acoustic Super type DFH2IRE** is fixed perpendicularly to profiles **CD 60** using system screws **Ø3.5 x 35 mm** placed maximally every **17 cm.** The shorter edges of the boards of the second layer are shifted in relation to one another and in relation to the shorter edges of the boards of the first layer by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of profiles **CD 60**. The longer edges of the boards of the second layer are shifted in relation to the longer edges of the boards of the first layer by at least **40 cm**.

The space between the beams is filled with **polyurethane foam** or **board PIR** of at least the E class of reaction to fire.

In the roof and in the Norgips roof casing it is permitted to use roof foil, or wind protection insulation and vapour insulation.

Screw heads and connections between **12.5 mm** thick boards **Norgips GKB type A** or **Norgips Acoustik typu A** or **Norgips GKBI type H2** or **Norgips GKF type DF** or **Norgips GKFI type DFH2** or **Norgips Acoustic Super type DFH2IRE** are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler** or ready mix **Norgips Start & Finish (Norgips Light Ready Mix)**, while the connections in the second layer of the boards are additionally reinforced with self-adhesive reinforcing tape Norgips made of glass fibre or with reinforcing tape made of interlining. For final covering, it is recommended to use ready mix e.g. **Norgips Extra Finish**, **Norgips Start & Finish (Norgips Light Ready Mix), Norgips Finish Mega (Norgips Easy Finish)** or gypsum finish **Norgips Finish**.

Constructional details of the roof casing made of **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A + GKF type DF** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips Acoustic type A + GKF type DF** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKBI type H2 + GKFI type DFH2** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A + Acoustic Super type DFH2IRE** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKBI type H2 + Acoustic Super type DFH2IRE** are presented in **Figures 7 ÷ 8.**

2.4 Roof casing ZP-2x12.5 GKB type A + GKF DF/KAPEL PUR, ZP-2x12.5 Acoustic type A + GKF DF/KAPEL PUR, ZP-2x12.5 GKBI type H2 + GKFI DFH2/KAPEL PUR, ZP-2x12.5 GKB type A + DFH2IRE/KAPEL PUR, ZP-2x12.5 GKBI type H2 + DFH2IRE/KAPEL PUR, with cladding made of 12.5 mm thick gypsum plasterboards Norgips GKB type A + GKF type DF or Norgips GKBI type H2 + GKFI type DFH2 or Norgips GKB type A + Acoustic Super type DFH2IRE or Norgips GKBI type H2 + Acoustic Super type DFH2IRE, and placed on the framework made of hat profiles

The roof casing is built on wooden elements of the rafter framing. The constructional elements of the rafter framing are designed according to Polish Standards and can be placed maximally every **100 cm.** One can apply any underlayment and cover of the roof, which are consistent with Polish Standards. The framework of the roof casing is made of **hat** profiles e.g. Norgips which were made of cold bent galvanized steel (the nominal thickness of the steel used: **0.55 mm** or **0.6 mm**). **Hat**

profiles are fixed directly to wooden beams (e.g. rafters); the beams are placed maximally every **100 cm** and this distance is measured between the axes of the adjacent beams. The hat profiles are fixed to the beams by means of screws for wood **Ø 3.5 x 35 mm** – two screws are applied per each joint. The maximum distance between **hat** profiles, as measured between the axes of the adjacent profiles, cannot exceed **40 cm**.

The first layer of **12.5 mm thick** boards **Norgips GKB type A** or **Norgips Acoustic type A** or **Norgips GKBI type H2** is fixed perpendicularly to **hat** profiles using system screws **Ø3.5 x 25 mm** placed maximally every **40 cm.** The shorter edges of the boards of the first layer are shifted in relation to one another by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of **hat** profiles. The second layer of **12.5 mm thick** boards **Norgips GKF type DF** or **12.5 mm thick** boards **Norgips GKFI type DFH2** or **12.5 mm thick** boards **Norgips Acoustic Super type DFH2IRE** is fixed perpendicularly to **hat** profiles using system screws **Ø3.5 x 35 mm** placed maximally every **17 cm.** The shorter edges of the boards of the second layer are shifted in relation to one another and in relation to the shorter edges of the boards of the first layer by at least **40 cm** while the connections between the shorter edges of the boards have to be placed within the axes of **hat** profiles. The longer edges of the boards of the second layer are shifted in relation to the longer edges of the boards of the first layer by at least **40 cm**.

The space between the beams is filled with **polyurethane foam** or **board PIR** of at least the E class of reaction to fire. In the roof and in the Norgips roof casing it is permitted to use roof foil, or wind protection insulation and vapour insulation.

Screw heads and connections between **12.5 mm** thick boards **Norgips GKB type A** or **Norgips Acoustik typu A** or **Norgips GKBI type H2** or **Norgips GKF type DF** or **Norgips GKFI type DFH2** or **Norgips Acoustic Super type DFH2IRE** are covered with gypsum filler e.g. **Norgips Start** or **Norgips Super Filler** or ready mix **Norgips Start & Finish (Norgips Light Ready Mix)**, while the connections in the second layer of the boards are additionally reinforced with self-adhesive reinforcing tape Norgips made of glass fibre or with reinforcing tape made of interlining. For final covering, it is recommended to use ready mix e.g. **Norgips Extra Finish**, **Norgips Start & Finish (Norgips Light Ready Mix), Norgips Finish Mega (Norgips Easy Finish)** or gypsum finish **Norgips Finish**.

Constructional details of the roof casing made of **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A + GKF type DF** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips Acoustic type A + GKF type DF** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKBI type H2 + GKFI type DFH2** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKB type A + Acoustic Super type DFH2IRE** or **2 x 12.5 mm** thick gypsum plasterboards **Norgips GKBI type H2 + Acoustic Super type DFH2IRE** are presented in **Figure 9.**

3. Fire resistance tests

Fire resistance tests of a roof with the Norgips roof casing and constructed as follows: wooden rafters, filling made of mineral glass wool [1.6] / filling made of polyurethane foam [1.7] and cladding made of gypsum plasterboards 2 x 12.5 GKB A + GKF DF, with the roof pitch angle of 30 degrees were carried out by the Fire Tests Laboratory of the Building Research Institute in Warsaw (Insytut Techniki Budowlanej).

Test reports: LZP01-03529/20/Z00NZP [1.6] and LZP02-03529/20/Z00NZP [1.7] and LBO-1587/21 [1.8].

4. Fire resistance classification of wooden roofs with the Norgips roof casing

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

roofs with the Norgips roof casing

prepared in accordance with the technical description presented in item 2, when exposed to fire from below, are classified in accordance with the criteria presented in standard PN-EN 13501-2:2023-09 [1.3] as belonging to fire resistance class **REI 30**.

5. Applicability

This classification is applicable to wooden roofs with the Norgips roof casing made of gypsum plasterboards Norgips 2 x 12.5 GKB A + GKF DF, Norgips Acoustic typu A + GKF typu DF, Norgips GKBI typu H2 + GKFI typu DFH2, Norgips GKB typu A + Acoustic Super typu DFH2IREE i Norgips GKBI typu H2 + Acoustic Super typu DFH2IREE.

The wooden constructional elements of the rafter framing should be designed according to Polish Standards and should meet the requirements resulting from acceptable strength parameters of wooden constructions and conditions of their use.

6. Validity

The classification presented in item 4 is valid until 29.05.2031 on the condition that there are no changes in the construction or materials of the classified products.

Annex 1 – Drawings presenting wooden roofs with the Norgips roof casing and cladding made of gypsum plasterboards Norgips 2 x 12.5 GKB A + GKF DF or GKBI H2 + GKFI DFH2 or GKB A + DF2HIR or GKBI H2+ DFH2IRE

Prezes Zarządu

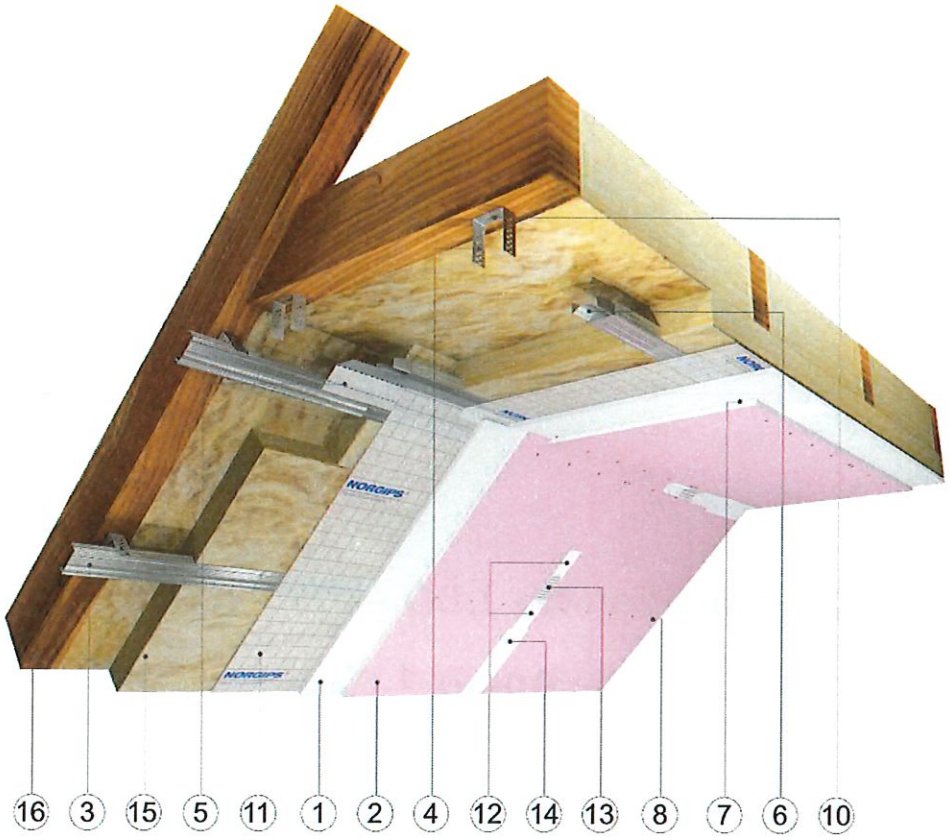
Andrzej Szarycki

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

Classification No. LBO – 077 – KZ/26E

Annex 1

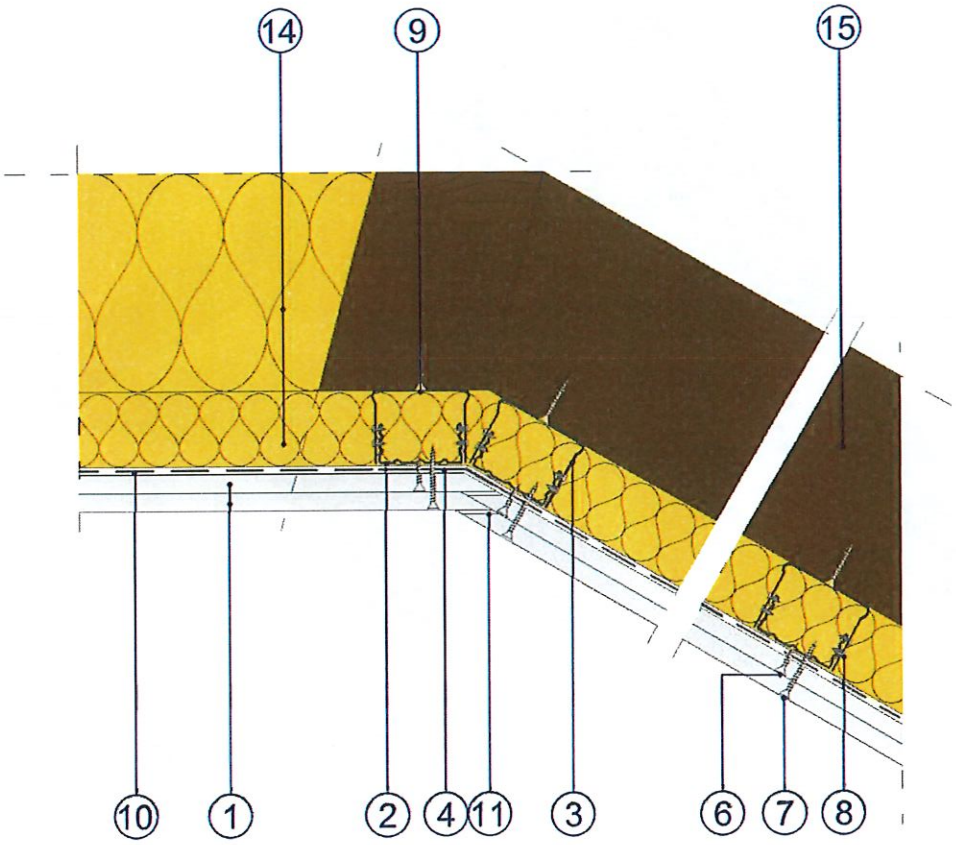
Drawings presenting wooden roofs
with the Norgips roof casing with cladding made of
gypsum plasterboards Norgips 2 x 12.5 GKB A + GKF DF or
Acoustic A + GKF DF or GKBI H2 + GKFI DFH2 or
GKB A + DF2HIR or GKBI H2+ DFH2IRE



LEGEND

1. Gypsum plasterboards Norgips GKB type A or Norgips Acoustic type A or Norgips GKBI type H2, thickness: 12.5 mm
2. Gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IRE, thickness: 12.5 mm
3. Profiles CD 60, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
4. Hangers type ES or ES plus
5. Universal profile Norgips Flex (recommended)
6. Lengthwise connectors
7. Screws 3.5 x 25 mm placed every 40 cm
8. Screws 3.5 x 35 mm placed every 17 cm
10. Screws for wood 3.5 x 35 mm
11. Vapour insulation foil (if required)
12. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
13. Reinforcing tape made of glass fibre
14. Ready mix e.g. Norgips Extra Finish, Norgips Start & Finish, Norgips Finish Mega (Norgips Easy Finish) or gypsum finish Norgips Finish
15. Mineral glass wool or mineral rock wool
16. Roof rafters

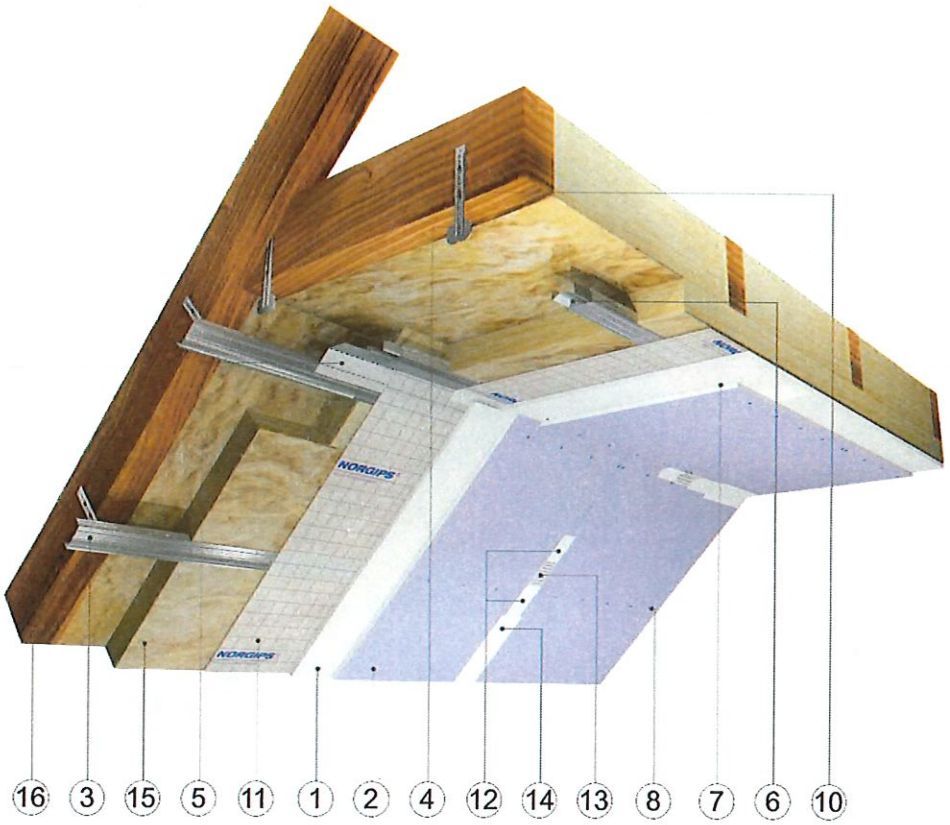
Figure 1 View of the roof casing with the framework made of profiles CD 60 and hangers ES or ES plus



LEGEND

1. Gypsum plasterboards Norgips GKB type A + GKF type DF or Norgips GKBI type H2 + GKFI type DFH2 or Norgips GKB type A + Acoustic Super type DFH2IRE or Norgips GKBI type H2 + Acoustic Super type DFH2IRE, thickness: 2 x 12.5 mm
2. Profiles CD 60, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
3. Hangers type ES or ES plus
4. Universal profile Norgips Flex (recommended)
6. Screws 3.5 x 25 mm placed every 40 cm
7. Screws 3.5 x 35 mm placed every 17 cm
8. Screws 3.5 x 9.5 mm with self-drilling endings
9. Screws for wood 3.5 x 35 mm
10. Vapour insulation foil (if required)
11. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
14. Mineral glass wool or mineral rock wool
15. Roof rafters

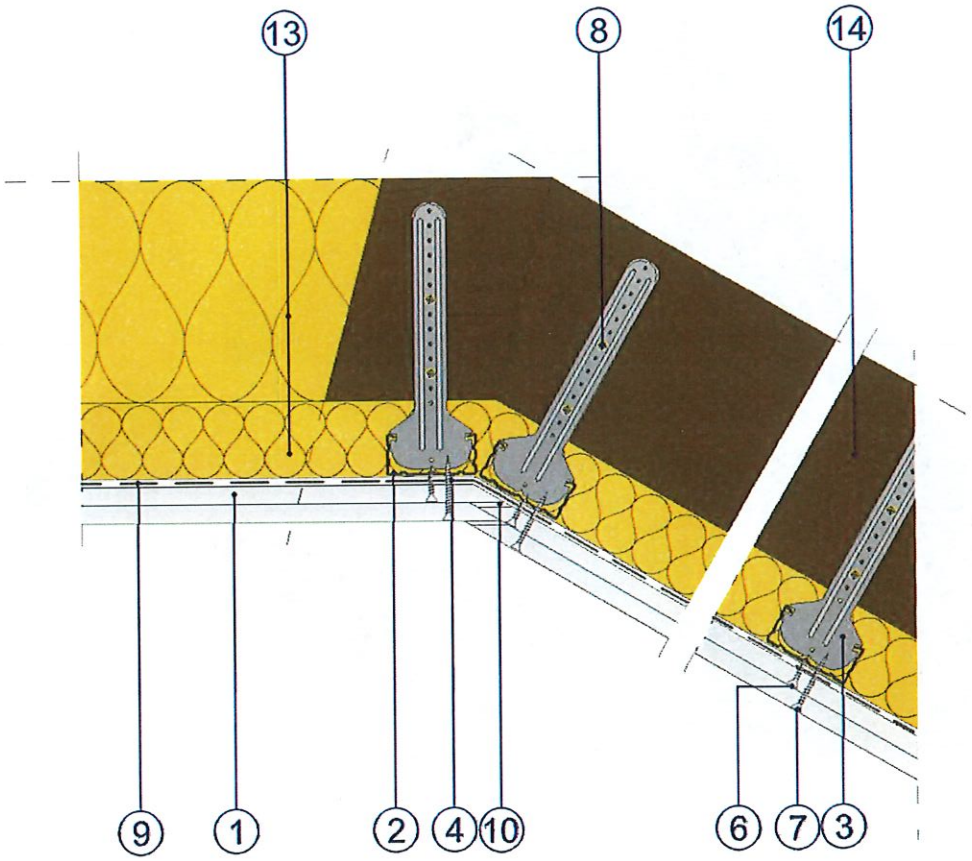
Figure 2 Horizontal section of the roof casing with the framework made of profiles CD 60 and hangers ES or ES plus



LEGEND

1. Gypsum plasterboards Norgips GKB type A or Norgips Acoustic type A or Norgips GKBI type H2, thickness: 12.5 mm
2. Gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgips Acoustic Super type DFH2IRE, thickness: 12.5 mm
3. Profiles CD 60, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
4. Flat hangers type L
5. Universal profile Norgips Flex (recommended)
6. Lengthwise connectors
7. Screws 3.5 x 25 mm placed every 40 cm
8. Screws 3.5 x 35 mm placed every 17 cm
10. Screws for wood 3.5 x 35 mm
11. Vapour insulation foil (if required)
12. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
13. Reinforcing tape made of glass fibre
14. Ready mix e.g. Norgips Extra Finish, Norgips Start & Finish, Norgips Finish Mega (Norgips Easy Finish) or gypsum finish Norgips Finish
15. Mineral glass wool or mineral rock wool
16. Roof rafters

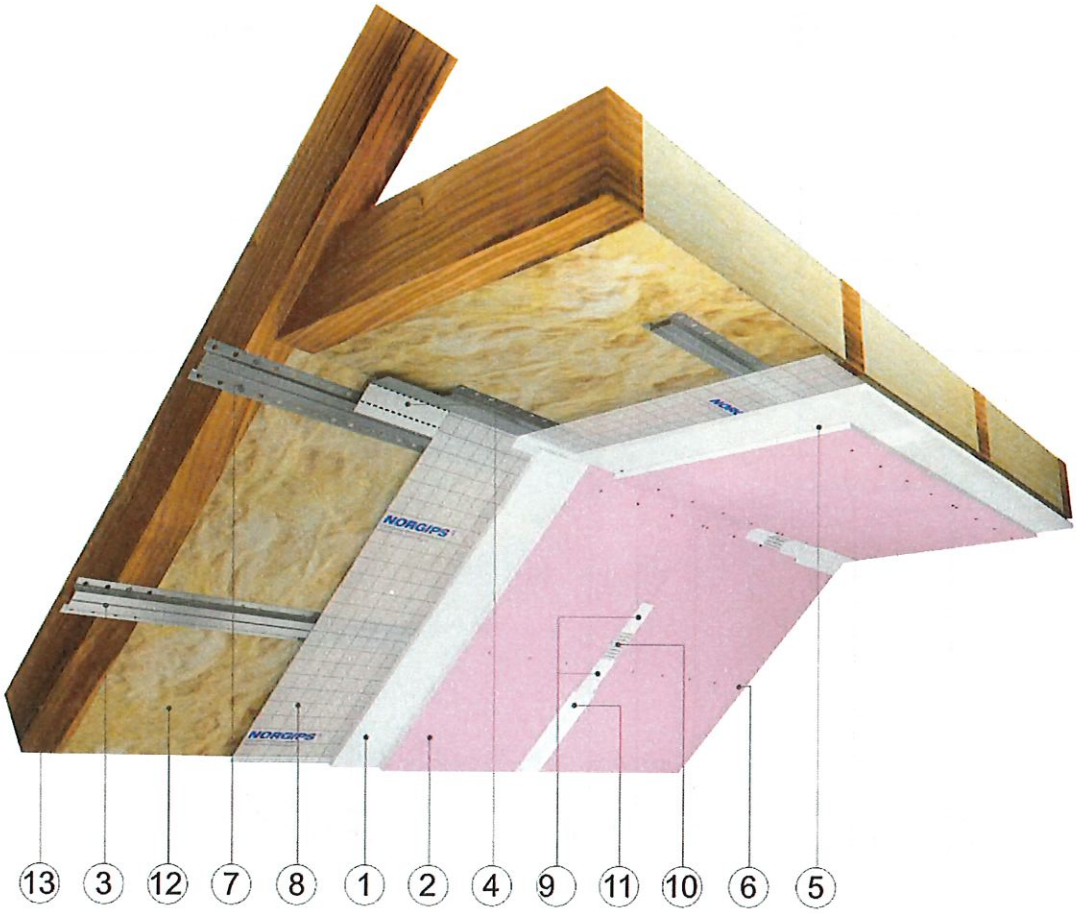
Figure 3 View of the roof casing with the framework made of profiles CD 60 and flat hangers type L



LEGEND

1. Gypsum plasterboards Norgips GKB type A + GKF type DF or Norgips Acoustic type A + GKF type DF or Norgips GKBI type H2 + GKFI type DFH2 or Norgips GKB type A + Acoustic Super type DFH2IRE or Norgips GKBI type H2 + Acoustic Super type DFH2IRE, thickness: 2 x 12.5 mm
2. Profiles CD 60, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
3. Flat hangers type L
4. Universal profile Norgips Flex (recommended)
6. Screws 3.5 x 25 mm placed every 40 cm
7. Screws 3.5 x 35 mm placed every 17 cm
8. Screws for wood 3.5 x 35 mm
9. Vapour insulation foil (if required)
10. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
13. Mineral glass wool or mineral rock wool
14. Roof rafters

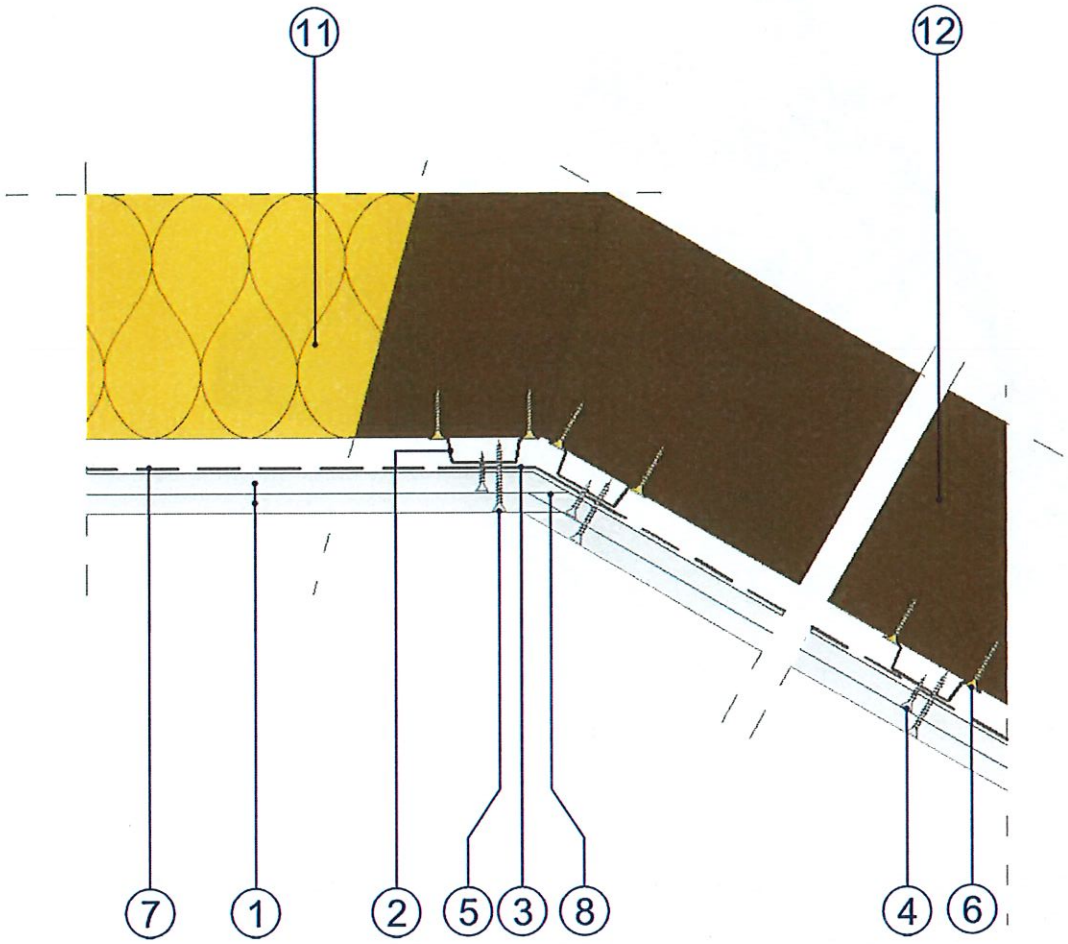
Figure 4 Horizontal section of the roof casing with the framework made of profiles CD 60 and flat hangers type L



LEGEND

1. Gypsum plasterboards Norgips GKB type A or Norgips Acoustic type A or Norgips GKBI type H2, thickness: 12.5 mm
2. Gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgpis Acoustic Super type DFH2IRE, thickness: 12.5 mm
3. Hat profiles, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
4. Universal profile Norgips Flex (recommended)
5. Screws 3.5 x 25 mm placed every 40 cm
6. Screws 3.5 x 35 mm placed every 17 cm
7. Screws for wood 3.5 x 35 mm
8. Vapour insulation foil (if required)
9. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
10. Reinforcing tape made of glass fibre
11. Ready mix e.g. Norgips Extra Finish, Norgips Start & Finish, Norgips Finish Mega (Norgips Easy
12. Finish) or gypsum finish Norgips Finish Mineral glass wool or mineral rock wool
13. Roof rafters

Figure 5 View of the roof casing with the framework made of hat profiles

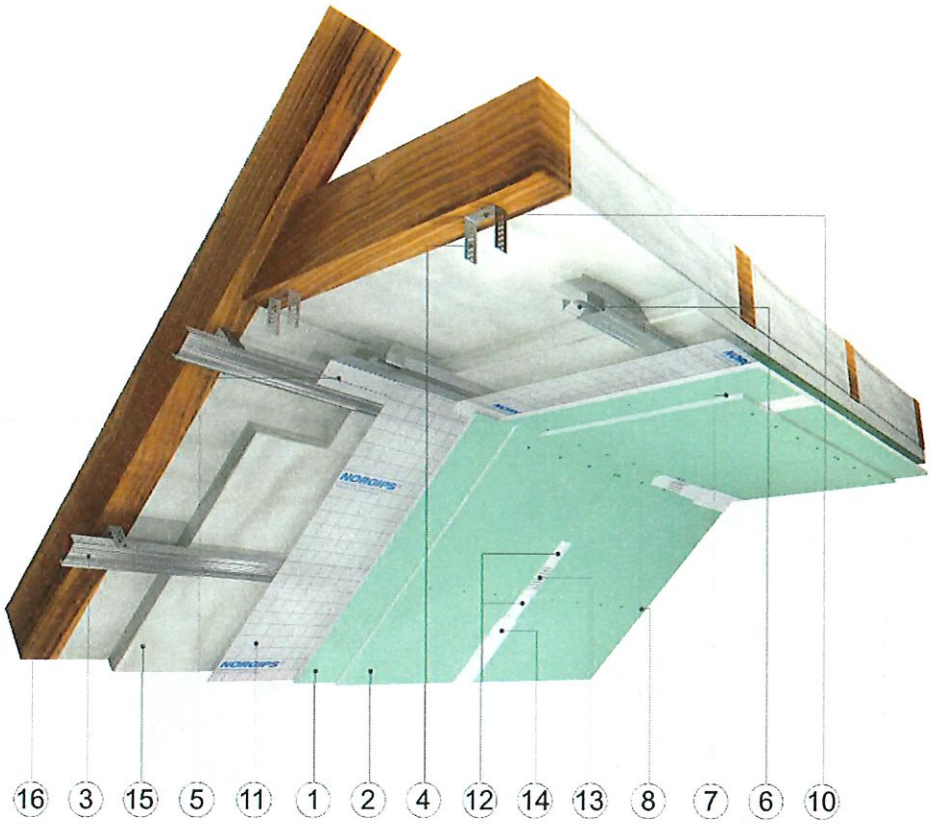


LEGEND

1. Gypsum plasterboards Norgips GKB type A + GKF type DF or Norgips Acoustic type A + GKF type DF or Norgips GKBI type H2 + GKFI type DFH2 or Norgips GKB type A + Norgpis Acoustic Super type DFH2IRE or Norgips GKBI type H2 + Acoustic Super type DFH2IRE, thickness: 2 x 12.5 mm
2. Hat profiles, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
3. Universal profile Norgips Flex (recommended)
4. Screws 3.5 x 25 mm placed every 40 cm
5. Screws 3.5 x 35 mm placed every 17 cm
6. Screws for wood 3.5 x 35 mm
7. Vapour insulation foil (if required)
8. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)

11. Mineral glass wool or mineral rock wool
12. Roof rafters

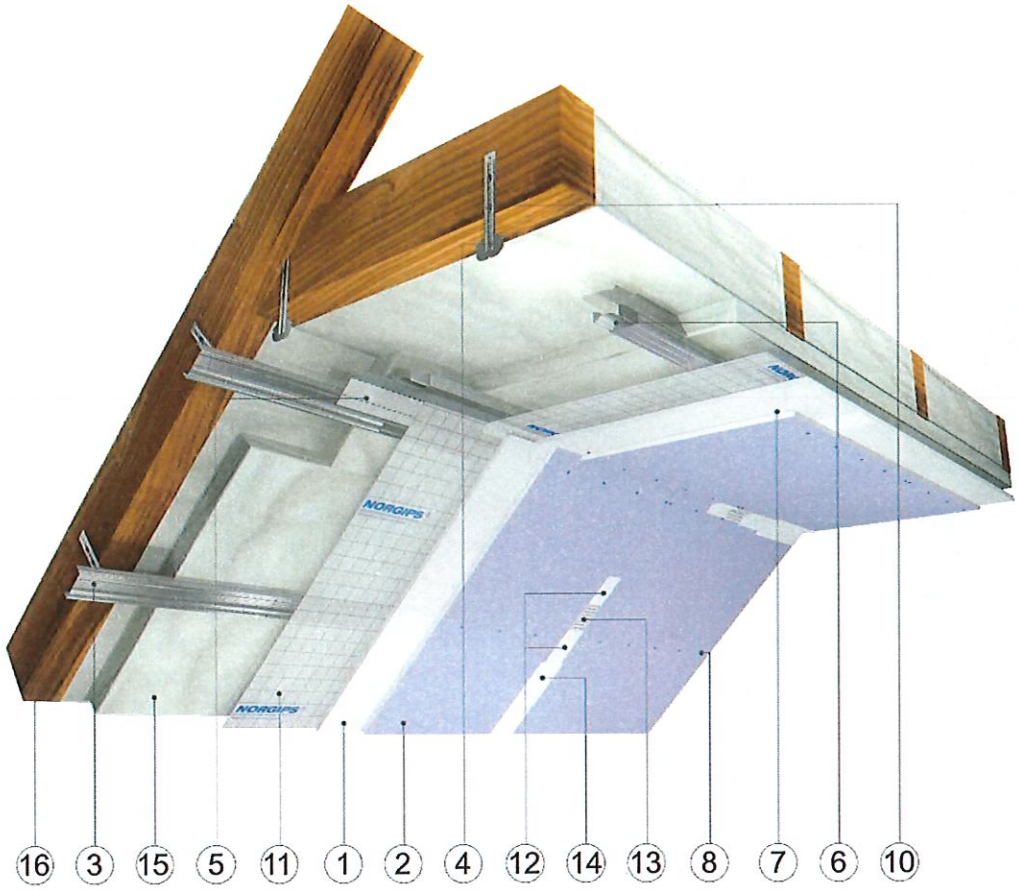
Figure 6 Horizontal section of the roof casing with the framework made of hat profiles



LEGEND

1. Gypsum plasterboards Norgips GKB type A or Norgips Acoustic type A or Norgips GKBI type H2, thickness: 12.5 mm
2. Gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgpis Acoustic Super type DFH2IRE, thickness: 12.5 mm
3. Profiles CD 60, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
4. Hangers type ES or ES plus
5. Universal profile Norgips Flex (recommended)
6. Lengthwise connectors
7. Screws 3.5 x 25 mm placed every 40 cm
8. Screws 3.5 x 35 mm placed every 17 cm
10. Screws for wood 3.5 x 35 mm
11. Vapour insulation foil (if required)
12. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
13. Reinforcing tape made of glass fibre
14. Ready mix e.g. Norgips Extra Finish, Norgips Start & Finish, Norgips Finish Mega (Norgips Easy
15. Finish) or gypsum finish Norgips Finish Screws TEX Ø 3.5 x 9.5 mm or Ø 3.5 x 11 mm – four screws per each hanger
16. Foam PUR
17. Roof rafters

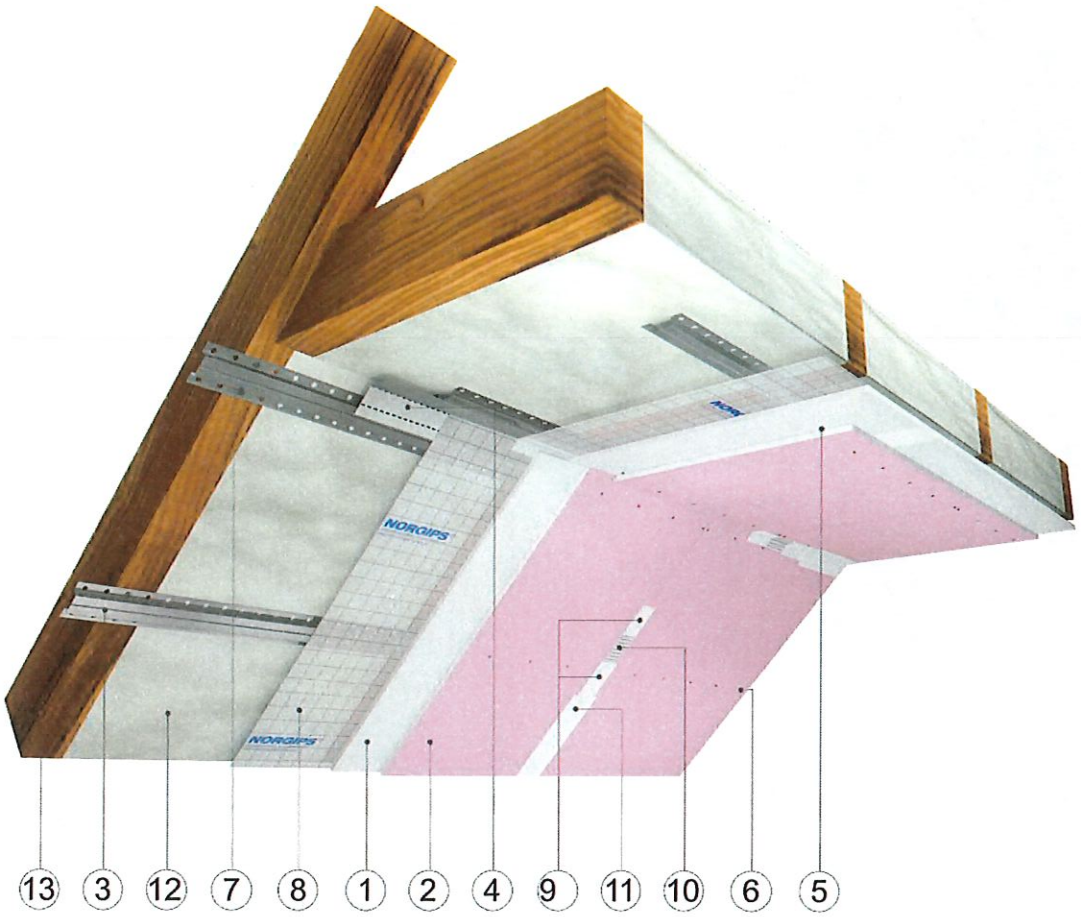
Figure 7 View of the roof casing with the framework made of profiles CD 60 and hangers ES or ES plus, filled with foam PUR



LEGEND

1. Gypsum plasterboards Norgips GKB type A or Norgips Acoustic type A or Norgips GKBI type H2, thickness: 12.5 mm
2. Gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgpis Acoustic Super type DFH2IRE, thickness: 12.5 mm
3. Profiles CD 60, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
4. Flat hangers type L
5. Universal profile Norgips Flex (recommended)
6. Lengthwise connectors
7. Screws 3.5 x 25 mm placed every 40 cm
8. Screws 3.5 x 35 mm placed every 17 cm
10. Screws for wood 3.5 x 35 mm
11. Vapour insulation foil (if required)
12. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
13. Reinforcing tape made of glass fibre
14. Ready mix e.g. Norgips Extra Finish, Norgips Start & Finish, Norgips Finish Mega (Norgips Easy Finish) or gypsum finish Norgips Finish Foam PUR
15. Roof rafters

Figure 8 View of the roof casing with the framework made of profiles CD 60 and flat hangers type L



LEGEND

1. Gypsum plasterboards Norgips GKB type A or Norgips Acoustic type A or Norgips GKBI type H2, thickness: 12.5 mm
2. Gypsum plasterboards Norgips GKF type DF or Norgips GKFI type DFH2 or Norgpis Acoustic Super type DFH2IRE, thickness: 12.5 mm
3. Hat profiles, placed every 40 cm (the distance measured between the axes of the adjacent profiles)
4. Universal profile Norgips Flex (recommended)
5. Screws 3.5 x 25 mm placed every 40 cm
6. Screws 3.5 x 35 mm placed every 17 cm
7. Screws for wood 3.5 x 35 mm
8. Vapour insulation foil (if required)
9. Gypsum filler e.g. Norgips Start, Norgips Super Filler, ready mix Norgips Start & Finish (Norgips Light Ready Mix)
10. Reinforcing tape made of glass fibre
11. Ready mix e.g. Norgips Extra Finish, Norgips Start & Finish, Norgips Finish Mega (Norgips Easy Finish) or gypsum finish Norgips Finish Foam PUR
12. Roof rafters

Figure 9 View of the roof casing with the framework made of hat profiles