



# Residential Sector Solutions

Meeting the Requirements of Domestic Technical Handbook Section 5: Noise (Scotland)



**British Gypsum**  
SAINT-GOBAIN

# Domestic Technical Handbook

## Section 5: Noise (Scotland)

On 1st October 2010 a new version of the Domestic Technical Handbook Section 5: Noise came into force in Scotland. This document was introduced following the first major review of the design performance requirements of previous Technical Handbooks in more than 20 years.

British Gypsum's Residential Sector Solutions guide to meeting the requirements of Domestic Technical Handbook Section 5: Noise has been developed to assist housebuilders, architects and specifiers who design and construct new homes in Scotland.

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Noise nuisance outside the control of dwelling occupants has increased substantially over the last decade, mainly as a result of changing lifestyles, greater numbers and use of sound-producing equipment and household appliances.

Section 5 aims to limit the transmission of sound to a level that will not threaten the health of occupants from sound transmission emanating from attached buildings or a differently occupied part of the same building. Since October 2010, it also covers sound from within the same dwelling if occupants are in rooms where they would expect to have some degree of peace and quiet.

### Summary of 2010 changes to Domestic Technical Handbook Section 5: Noise

- A new scope covering all dwellings and residential buildings.
- An increase in the sound insulation performance of separating walls and separating floors.
- Introduction of Post-Completion Testing for all separating walls and separating floors.
- Guidance for carrying out work to existing buildings, e.g. conversions.
- A new standard to reduce noise between rooms within the same dwelling (particularly around sleeping areas).

Standard 5.1

Section 5 states:

Every building, which is divided into more than one area of different occupation, must be designed and constructed in such a way to limit the transmission of source noise from normal domestic type activities, between such areas, to a level that will not threaten the health of, or cause inconvenience to, the building occupants.

Table 1 – Design Performance Levels

	New-build and conversions (not including traditional buildings)	Conversion of traditional buildings*
Minimum airborne sound insulation	D <sub>nt,w</sub> 56 dB	D <sub>nt,w</sub> 53 dB
Maximum impact sound transmission	L <sub>nt,w</sub> 56 dB	L <sub>nt,w</sub> 58 dB

\*definition of traditional buildings  
A building or part of a building of a type constructed before or around 1919:  
a) using construction techniques that were commonly in use before 1919; and  
b) with permeable components, in a way that promotes the dissipation of moisture from the building fabric.

Demonstrating compliance

There are two methods in which to achieve the design performance levels of Standard 5.1.

They are by the use of:

- a) Example Constructions; or
- b) Other constructions

a. Example Constructions

Example Constructions have been developed to repeatedly achieve the required design performance levels, providing that they are built correctly and all associated flanking details are correctly designed. They are examples of constructions, commonly used within the UK, that are proven to reduce sound transmission at frequencies which can generate neighbour complaints.

b. Other constructions

Other constructions include manufacturers’ proprietary solutions and new, or innovative, construction designs, which are not considered to be Example Constructions.

Post-Completion Testing

The specification of Example or other constructions alone will not guarantee that the regulatory performance levels will be achieved. Therefore, the onus is now on the housebuilder to demonstrate compliance to Domestic Technical Handbook Section 5: Noise, by carrying out Post-Completion Testing of the built construction on site.

On completion, new homes should be tested in accordance with the table below.

Table 2 – Recommended minimum number of tests (for each different construction type)

	No. of attached dwellings	No. of tests for separating walls (houses)	No. of tests for separating walls (flats or maisonettes)	No. of tests for separating floors (flats or maisonettes)
New-build using Example Constructions	2 – 20	2	2	2
	21 – 40	3	3	3
	Over 40	1 extra for every 20 houses (or part thereof)	1 extra for every 20 flats or maisonettes (or part thereof)	1 extra for every 20 flats or maisonettes (or part thereof)
New-build using Other constructions	2 – 10	2	2	2
	11 – 20	3	3	3
	21 – 30	4	4	4
	Over 30	1 extra for every 10 houses (or part thereof)	1 extra for every 10 flats or maisonettes (or part thereof)	1 extra for every 10 flats or maisonettes (or part thereof)

Sound tests should only be carried out on a building that is complete and when doors, access hatches and windows are fitted. Carpet should not be used as a bonded resilient floor covering or laid before an impact test for separating floors.

Sound testing should be carried out in accordance with;

- a) BS EN ISO 140-4: 1998 and BS EN ISO 717-1: 1997, for airborne sound transmission; and
- b) BS EN ISO 140-7: 1998 and BS EN ISO 717-2: 1997, for impact sound transmission.

Designing for on-site performance

For separating wall and floor constructions to be fully effective, care must be taken to correctly detail the junctions between the separating wall or floor, and associated elements such as external walls, other separating elements, penetrations and door openings. Inappropriate detailing of flanking conditions can greatly reduce the level of performance of the separating element on site, from that achieved in the laboratory, and regulatory requirements may not be achieved in practice.

Post-Completion Testing exposes poor flanking details and inadequate separating wall and floor specifications. Therefore, good flanking detailing and specifications that provide a reasonable margin of safety on site, are essential.

A method of predicting the achievable on-site ( $D_{nT,w}$ ) performance, is to refer to a laboratory ( $R_w$ ) performance rating.

In order to achieve a particular performance on site, a recommended safety factor of +7 dB will satisfy most requirements when specifying a separating wall or floor using laboratory performance data.

In our experience the following safety factors are realistic in their potential to satisfy the requirements of Domestic Technical Handbook Section 5: Noise, assuming good workmanship, with all flanking paths appropriately detailed, and potential air leakage paths sealed.

Airborne site requirement	Recommended laboratory performance
$D_{nT,w}$ 56 dB	$R_w$ 63 dB
$D_{nT,w}$ 53 dB	$R_w$ 60 dB

It is possible that the safety factor applied could be lower than the above examples if acousticians are involved on the project as they may have a greater knowledge of the site and a degree of control over detailing and installation.

Where there is a requirement for impact performance on site ( $L_{nT,w}$ ), this relates to separating floors only. Provided the floor meets the relevant airborne requirement and there is a de-coupling of both the walking surface and the ceiling from the base floor, then in our experience the floor will have the potential to meet the impact requirement.

Standard 5.2

Section 5 states:

Every building must be designed and constructed in such a way to limit the transmission of source noise from normal domestic type activities, through a wall or floor and between a room and internal space where noise is likely to occur, to a level that will not cause inconvenience to the building occupants.

Standard 5.2 applies to a wall or floor forming a room in a dwelling, or a room in a residential building, which is capable of being used for sleeping.

It does not apply to a wall between an en-suite bathroom and the room it serves or walls within a hospital or place of lawful detention.

Minimum airborne sound insulation  $R_w$  43 dB.



# Separating walls

Separating wall details within this section are of timber, masonry and steel construction and include both Example Constructions and other constructions.

**Example Constructions** are shown incorporating British Gypsum and Saint-Gobain Isover products, where appropriate. These details are British Gypsum versions of Example Constructions, which, provided they are built correctly, are deemed to achieve the requirements of Standard 5.1.

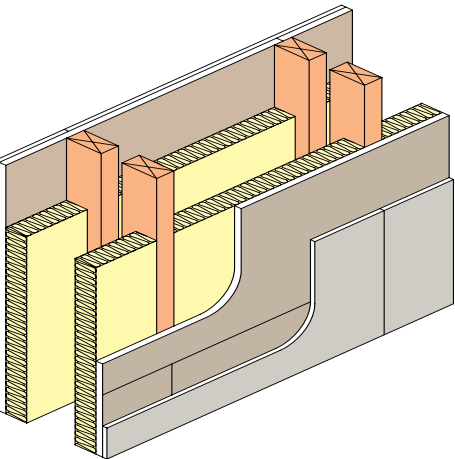
**Other constructions** are shown as **British Gypsum Approved Systems**, which, provided they are built correctly, have the potential to achieve, or exceed, Standard 5.1 performance levels required for separating wall constructions in new-build houses and flats.

Post-Completion Testing must be carried out in accordance with Table 2, on page 5 of this document, to demonstrate compliance.



# Separating walls

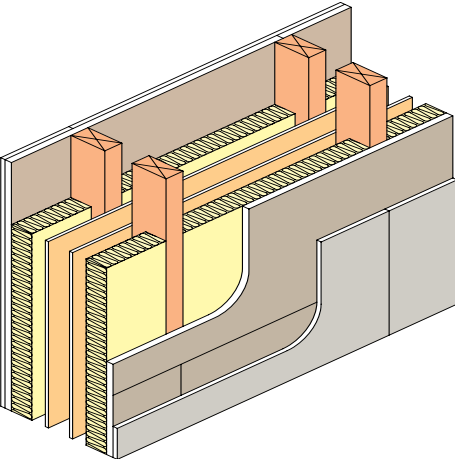
## Timber frame Example Construction (Wall Type 3)



- Overall construction width minimum 300mm
- 240mm (minimum) between inner faces of wall lining twin studs must not be bridged by diagonal bracing
- Board options  
*Inner layer 19mm Gyproc Plank and outer layer 12.5mm Gyproc WallBoard (or 19mm Gyproc Plank and 12.5mm Rigidur H)*  
*Double layer of 15mm Gyproc SoundBloc (or 15mm Gyproc SoundBloc and 12.5mm Rigidur H)*  
*Double layer of 15mm Gyproc FireLine (or 15mm Gyproc FireLine and 12.5mm Rigidur H)*
- 65mm Isover Acoustic Partition Roll (APR 1200) or 90mm Isover Timber Frame Batt 40 positioned between the studs in each frame



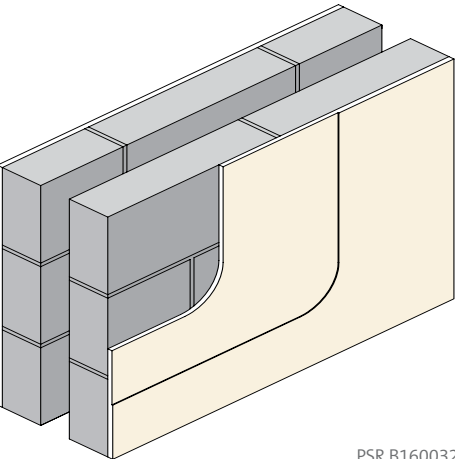
## Timber frame - with sheathing board Example Construction (Wall Type 3)



- Overall construction width minimum 305mm
- 250mm (minimum) between inner faces of wall lining 50mm (minimum) gap between sheathing
- Board options  
*Inner layer 19mm Gyproc Plank and outer layer 12.5mm Gyproc WallBoard (or 19mm Gyproc Plank and 12.5mm Rigidur H)*  
*Double layer of 15mm Gyproc SoundBloc (or 15mm Gyproc SoundBloc and 12.5mm Rigidur H)*  
*Double layer of 15mm Gyproc FireLine (or 15mm Gyproc FireLine and 12.5mm Rigidur H)*
- 65mm Isover Acoustic Partition Roll (APR 1200) or 90mm Isover Timber Frame Batt 40 positioned between the studs in each frame



3 Cavity masonry wall – plastered  
British Gypsum Approved System



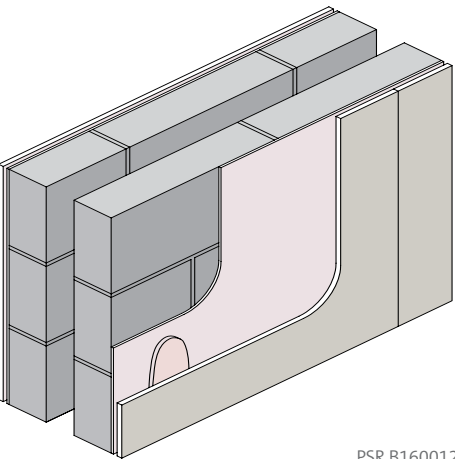
PSR B160032

- Overall construction width 306mm
- Twin leaf 100mm lightweight aggregate blocks with minimum 80mm cavity (1600kg/m³)
- Minimum 13mm Thistle plaster to both sides



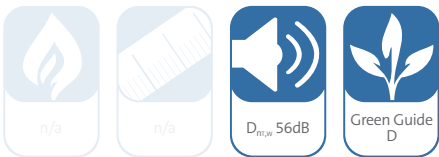
Advice should be sought from the block manufacturer for the fire resistance performance.

4 Cavity masonry wall – drylined  
British Gypsum Approved System



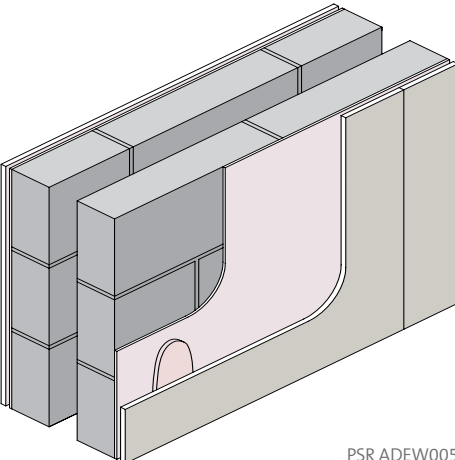
PSR B160012

- Overall construction width 341mm
- Twin leaf 100mm lightweight aggregate blocks (1600kg/m³) with minimum 100mm cavity
- 8mm Gyproc Soundcoat Plus and 12.5mm Gyproc WallBoard on dabs to both sides



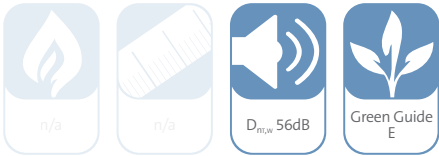
Advice should be sought from the block manufacturer for the fire resistance performance.

5 Cavity masonry wall – drylined  
British Gypsum Approved System



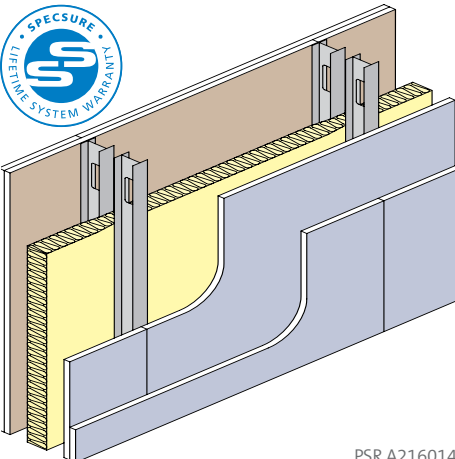
PSR ADEW005

- Overall construction width 341mm
- Twin leaf 100mm dense aggregate blocks (2000kg/m³) with minimum 100mm cavity
- 8mm Gyproc Soundcoat Plus and 12.5mm Gyproc WallBoard on dabs to both sides



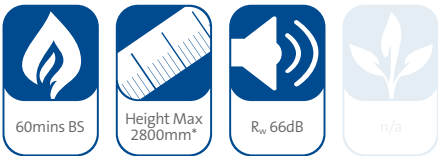
Advice should be sought from the block manufacturer for the fire resistance performance.

Steel Frame - GypWall QUIET IWL  
British Gypsum Approved System



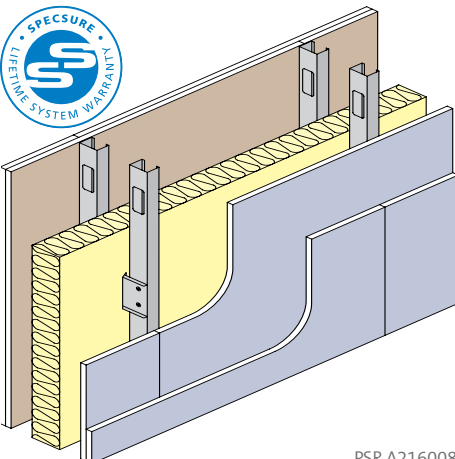
PSR A216014

- Overall construction width 200mm (minimum)
- Two frames of Gypframe 48 I 50 'I' Studs at 600mm centres
- 50mm Isover Acoustic Partition Roll (APR 1200)
- Double layer of 15mm Gyproc SoundBloc each side



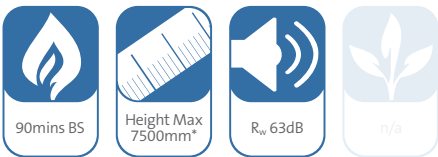
\* at 600mm centres

Steel Frame - GypWall QUIET  
British Gypsum Approved System



PSR A216008

- Overall construction width 300mm (minimum)
- Two frames of Gypframe 48 S 50 'C' Studs at 600mm centres, cross braced at 1200mm centres
- 25mm Isover Acoustic Partition Roll (APR 1200)
- Double layer of 15mm Gyproc SoundBloc each side



\* at 600mm centres



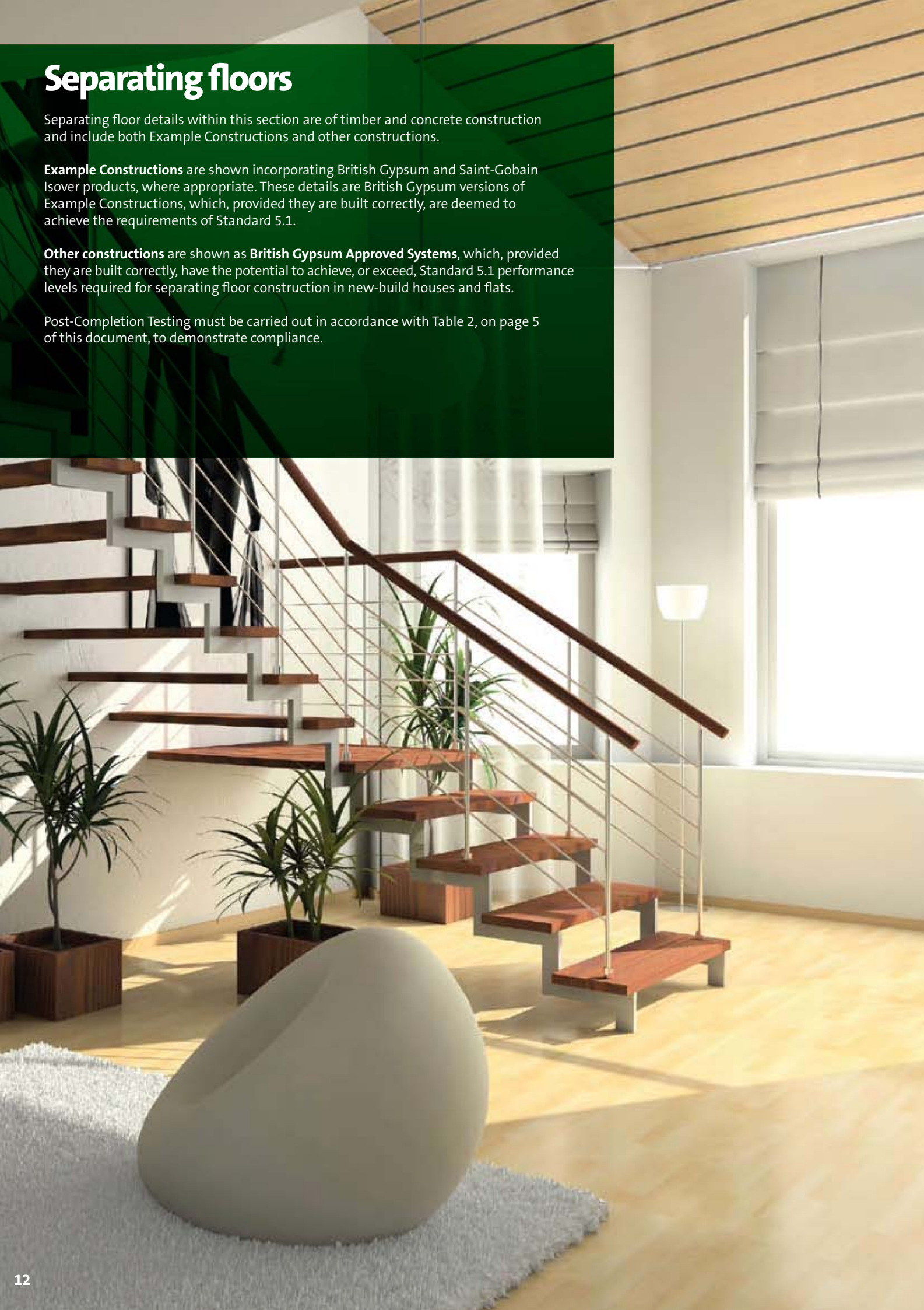
# Separating floors

Separating floor details within this section are of timber and concrete construction and include both Example Constructions and other constructions.

**Example Constructions** are shown incorporating British Gypsum and Saint-Gobain Isover products, where appropriate. These details are British Gypsum versions of Example Constructions, which, provided they are built correctly, are deemed to achieve the requirements of Standard 5.1.

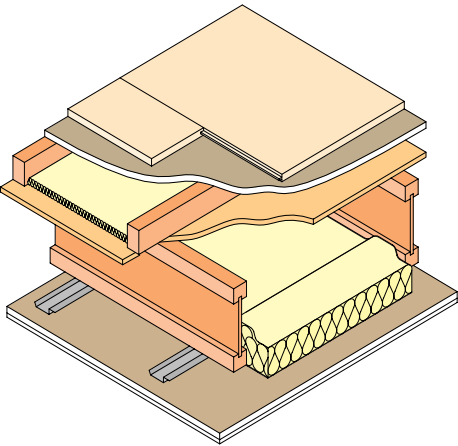
**Other constructions** are shown as **British Gypsum Approved Systems**, which, provided they are built correctly, have the potential to achieve, or exceed, Standard 5.1 performance levels required for separating floor construction in new-build houses and flats.

Post-Completion Testing must be carried out in accordance with Table 2, on page 5 of this document, to demonstrate compliance.



## Separating floors

### Timber I joists Example Construction (Floor Type 3B)

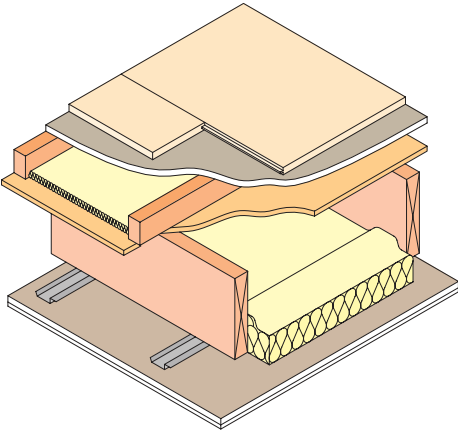


- 18mm (minimum) t&g chipboard walking surface (minimum density 600kg/m³)
- 19mm Gyproc Plank
- Floating Floor Treatment that achieves: delta R<sub>w</sub> >17 dB; delta R<sub>w</sub>+Ctr >13 dB; and delta L<sub>w</sub> >16 dB
- 25mm Isover Acoustic Partition Roll (APR 1200)
- 15mm timber deck
- Minimum 240mm timber I joists at maximum 480mm centres
- 100mm Isover Acoustic Partition Roll (APR 1200)
- Gypframe RB1 Resilient Bar at 400mm centres
- Double layer of 15mm Gyproc SoundBloc



Advice should be sought from the I joist manufacturer for the fire resistance performance.

### Timber solid joists Example Construction (Floor Type 3)



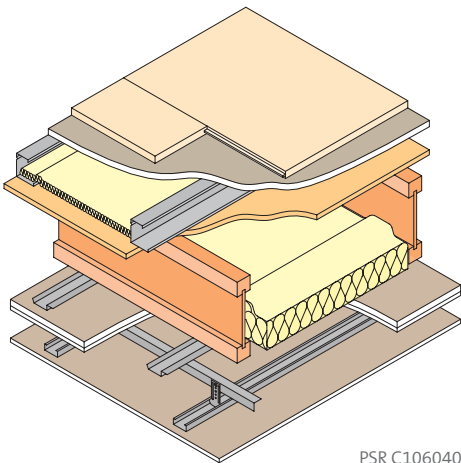
- 18mm (minimum) t&g chipboard walking surface (minimum density 600kg/m³)
- 19mm Gyproc Plank
- Floating Floor Treatment that achieves: delta R<sub>w</sub> >17 dB; delta R<sub>w</sub>+Ctr >13 dB; and delta L<sub>w</sub> >16 dB
- 65mm Isover Acoustic Partition Roll (APR 1200)
- 15mm timber deck
- Minimum 220mm timber solid joists at maximum 400mm centres
- 100mm Isover Acoustic Partition Roll (APR 1200)
- Gypframe RB1 Resilient Bar
- Double layer of 15mm Gyproc SoundBloc





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Timber I joists with GypFloor sb walking surface  
British Gypsum Approved System



PSR C106040

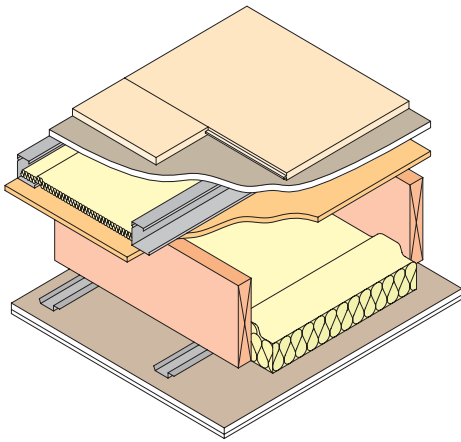
- 18mm (minimum) t&g chipboard walking surface (minimum weight 15kg/m²)
- 19mm Gyproc Plank
- 70mm Gypframe Steel Battens
- 50mm Isover Acoustic Partition Roll (APR 1200)
- 15mm timber deck
- Minimum 240mm I joists at 450mm centres
- 100mm Isover Acoustic Partition Roll (APR 1200)
- Gypframe RB1 Resilient Bar at 400mm centres
- Double layer of 15mm Gyproc SoundBloc
- Sacrificial ceiling lining of 100mm Gyplyner UNIVERSAL ceiling lined with 12.5mm Gyproc WallBoard



Advice should be sought from the I joist manufacturer for the fire resistance performance.

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Timber solid joists with GypFloor sb walking surface  
British Gypsum Approved System



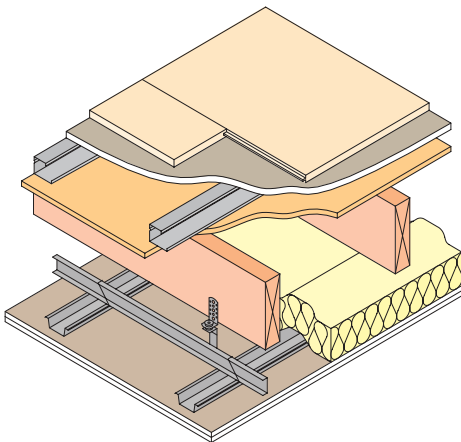
PSR C106031

- 18mm (minimum) t&g chipboard walking surface (minimum weight 15kg/m²)
- 19mm Gyproc Plank
- 50mm Gypframe Steel Battens
- 15mm timber deck
- Minimum 235mm solid joists at 450mm centres
- 100mm Isover Acoustic Partition Roll (APR 1200)
- Gypframe RB1 Resilient Bar at 450mm centres
- Double layer of 15mm Gyproc SoundBloc



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Timber solid joists with GypFloor sb walking surface  
British Gypsum Approved System

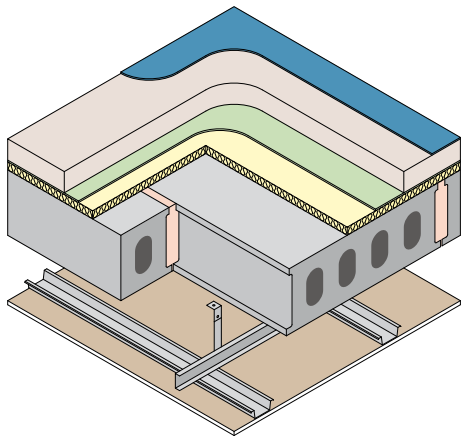


PSR C106035

- 18mm (minimum) t&g chipboard walking surface (minimum weight 15kg/m²)
- 19mm Gyproc Plank
- 50mm Gypframe Steel Battens
- 15mm timber deck
- Minimum 195mm solid joists at 450mm centres
- 100mm Isover Acoustic Partition Roll (APR 1200)
- CasoLine MF ceiling system (cavity depth minimum 290mm from underside of timber deck) incorporating Gypframe GAH2 Acoustic Hangers
- Double layer of 15mm Gyproc SoundBloc



Pre-cast concrete floor slabs  
Example Construction (Floor type 2A)



- Minimum 3mm bonded resilient floor covering
- 65mm sand cement screed
- Isolating layer (number 2) minimum 5mm foamed polyethylene layer (30-36kg/m³)
- Isolating layer (number 1) minimum 25mm mineral wool batt (140kg/m³), e.g. Isover RD Floor Slab, or 25mm expanded or extruded polystyrene insulation board
- 200mm pre-cast concrete floor slabs (minimum weight 365kg/m²)
- 150mm ceiling void
- CasoLine MF ceiling
- 12.5mm Gyproc SoundBloc or Gyproc WallBoard TEN



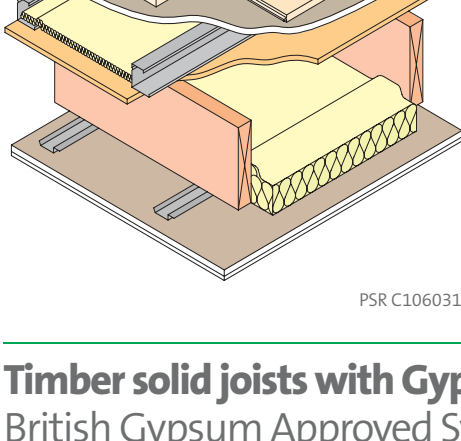
Advice should be sought from the concrete manufacturer for the fire resistance performance.

Pre-cast concrete floor slabs

13

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Pre-cast concrete floor slabs  
Example Construction (Floor type 2B)



- 18mm (minimum) t&g chipboard walking surface (minimum weight 15kg/m²)
- 50mm Gypframe Steel Battens
- 25mm Isover Acoustic Partition Roll (APR 1200)
- 50mm screed
- 200mm pre-cast concrete floor slabs
- 150mm deep ceiling void
- CasoLine MF ceiling
- 12.5mm Gyproc SoundBloc or Gyproc WallBoard TEN

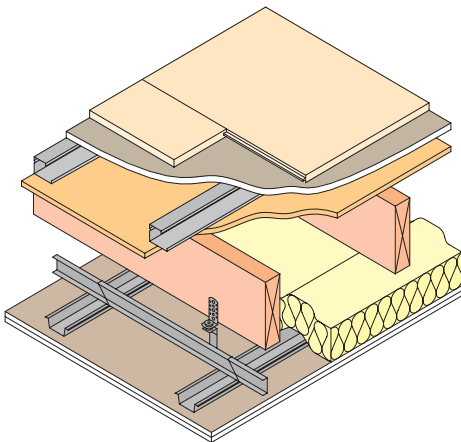


Advice should be sought from the concrete manufacturer for the fire resistance performance.

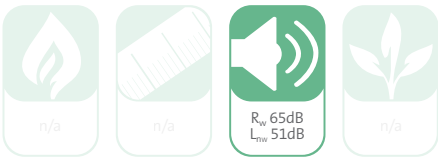
Pre-cast concrete floor slabs

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Pre-cast concrete floor slabs  
British Gypsum Approved System



- 18mm (minimum) t&g chipboard walking surface (minimum weight 15kg/m²)
- 50mm Gypframe Steel Battens
- 50mm screed
- 150mm pre-cast concrete floor slabs (minimum weight 300kg/m²)
- 140mm deep ceiling void
- CasoLine MF ceiling
- 12.5mm Gyproc SoundBloc



Advice should be sought from the concrete manufacturer for the fire resistance performance.

Pre-cast concrete floor slabs

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# Internal walls

Internal wall details within this section are of timber and steel construction and include both Generic Internal Constructions and British Gypsum's proprietary solutions.

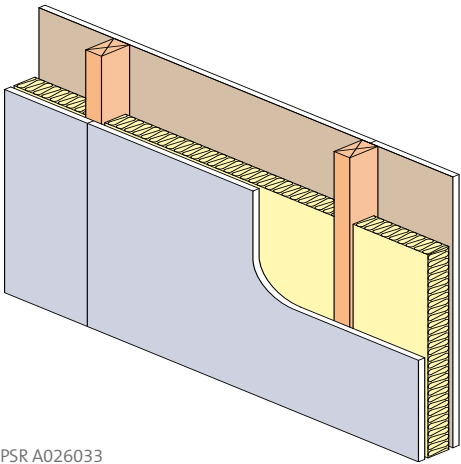
**Generic Internal Constructions** are shown incorporating British Gypsum and Saint-Gobain Isover products, where appropriate. These details are British Gypsum versions of Generic Internal Constructions, which, provided they are built correctly, are deemed to achieve the requirements of Standard 5.2.

**British Gypsum Approved Systems** are deemed to achieve Standard 5.2 performance criteria for internal wall construction within new-build houses and flats, provided they are built correctly.



## Internal walls

### Timber stud British Gypsum Approved System

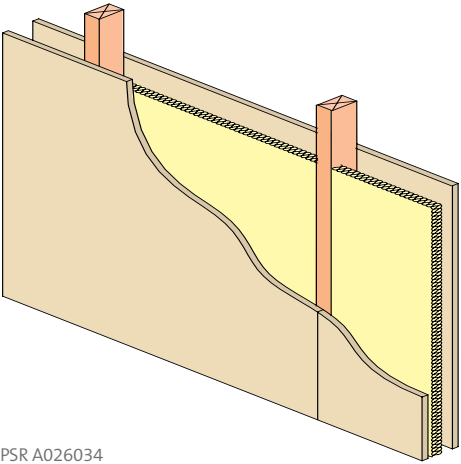


PSR A026033

- Overall construction width 93mm
- 63mm timber studs at 600mm centres
- 50mm Isover Acoustic Partition Roll (APR 1200)
- Single layer of 15mm Gyproc SoundBloc to both sides



### Timber stud British Gypsum Approved System

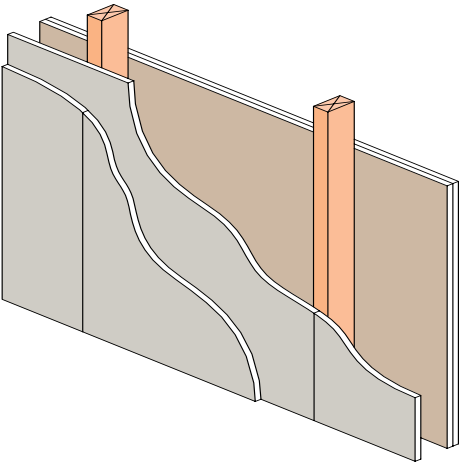


PSR A026034

- Overall construction width 88mm
- 63mm timber studs at 600mm centres
- 25mm Isover Acoustic Partition Roll (APR 1200)
- Single layer of 12.5mm Rigidur to both sides



### Timber stud Generic Internal Construction (Internal Wall Type 1)

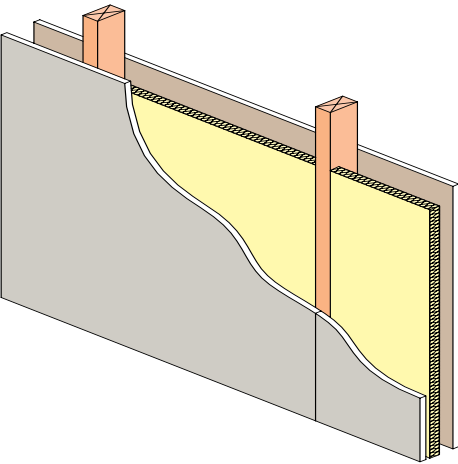


- Overall construction width 125mm
- 75mm timber studs at 600mm centres
- Double layer of 12.5mm Gyproc SoundBloc or Gyproc WallBoard to both sides



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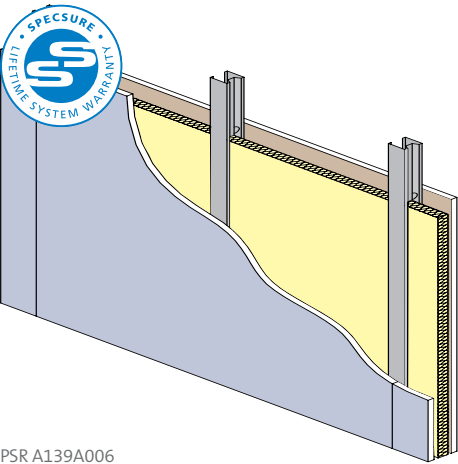
Timber stud  
Generic Internal Construction (Internal Wall Type 1A)



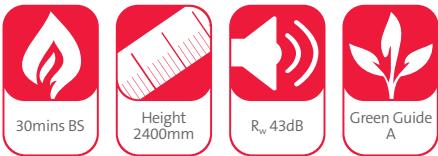
- Overall construction width 100mm
- 75mm timber studs at 600mm centres
- 25mm Isover Acoustic Partition Roll (APR 1200)
- Single layer of 12.5mm Gyproc SoundBloc or Gyproc WallBoard TEN to both sides



Steel stud – GypWall RAPID dB Plus  
British Gypsum Approved System



- Overall construction width 75mm
- Gypframe 43 AS 50 AcouStuds at 450mm centres
- 25mm Isover Acoustic Partition Roll (APR 1200)
- Single layer of 15mm Gyproc SoundBloc RAPID



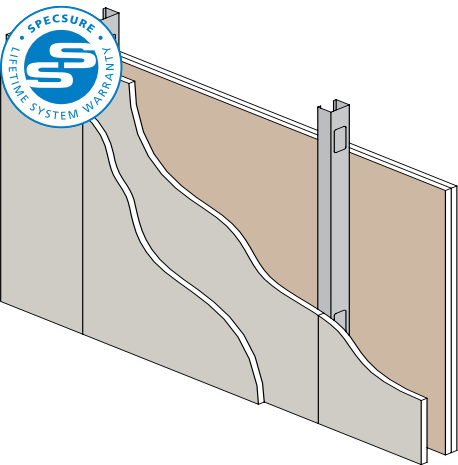
PSR A139A006

Timber stud

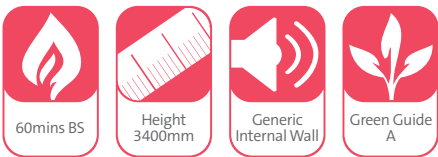
Steel stud – GypWall rapid dB Plus

21

Steel stud  
Generic Internal Construction (Internal Wall Type 2)



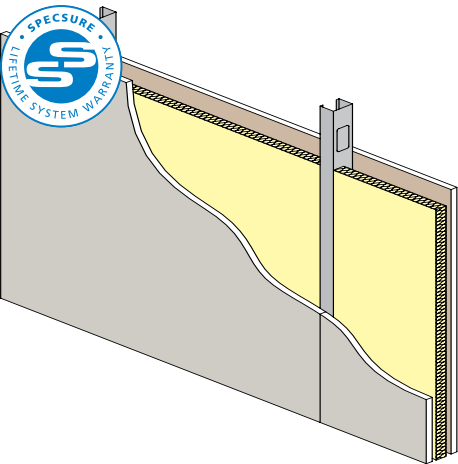
- Overall construction width 100mm
- Minimum 48mm Gypframe 48 S 50 'C' Studs at 600mm centres
- Double layer of 12.5mm Gyproc SoundBloc or Gyproc WallBoard TEN to both sides



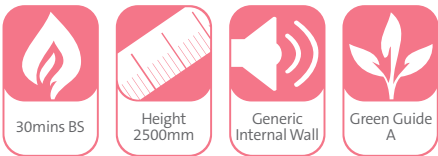
Steel stud

22

Steel stud  
Generic Internal Construction (Internal Wall Type 2A)



- Overall construction width 75mm
- Minimum 48mm Gypframe 48 S 50 'C' Studs at 600mm centres
- 25mm Isover Acoustic Partition Roll (APR 1200)
- Single layer of 12.5mm Gyproc SoundBloc or Gyproc WallBoard TEN to both sides



Steel stud



# Internal floors

Internal floor details within this section are of timber construction and include both Generic Internal Constructions and British Gypsum's proprietary solutions.

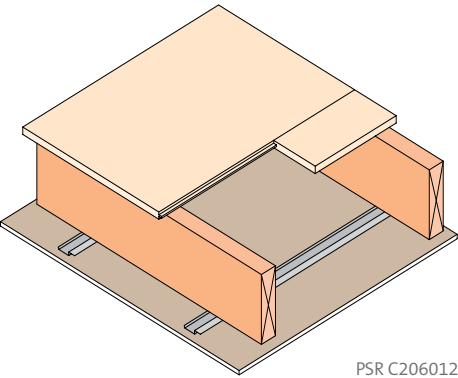
**Generic Internal Constructions** are shown incorporating British Gypsum and Saint-Gobain Isover products, where appropriate. These details are British Gypsum versions of Generic Internal Constructions, which, provided they are built correctly, are deemed to achieve the requirements of Standard 5.2.

**British Gypsum Approved Systems** are deemed to achieve Standard 5.2 performance criteria for internal floor construction within new-build houses and flats, provided they are built correctly.



## Internal floors

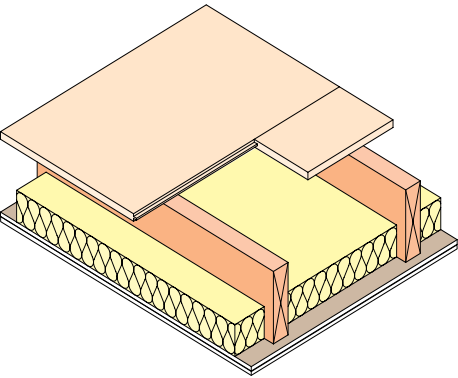
### Timber joists British Gypsum Approved System



- 18mm (minimum) t&g chipboard walking surface (minimum weight 15kg/m<sup>2</sup>)
- Minimum 195mm solid joists at 450mm centres
- Gypframe RB1 Resilient Bar at 450mm centres
- Single layer of 12.5mm Gyproc WallBoard



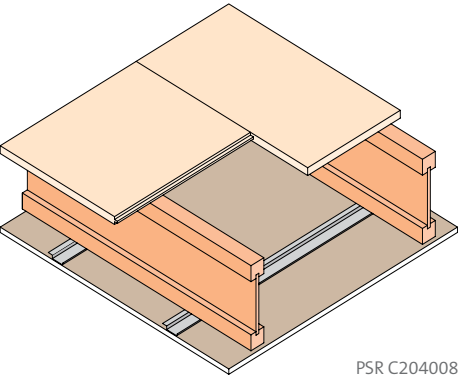
### Timber joists Generic Internal Construction (Internal Floor Type 1)



- Chipboard walking surface (minimum weight 15kg/m<sup>2</sup>)
- Minimum 200mm timber solid joists at 400mm centres
- 100mm Isover Acoustic Partition Roll (APR 1200)
- Double layer of 12.5mm Gyproc SoundBloc or Gyproc WallBoard **TEN**



### Timber joists British Gypsum Approved System



- 18mm (minimum) t&g chipboard walking surface (minimum weight 15kg/m<sup>2</sup>)
- Minimum 240mm deep engineered I joists at 450mm centres
- Gypframe RB1 Resilient Bars at 450mm centres
- Single layer of 15mm Gyproc Wallboard



For details regarding the fire resistance performance of this construction, advice should be sought from the I joist manufacturer.

# Flanking details

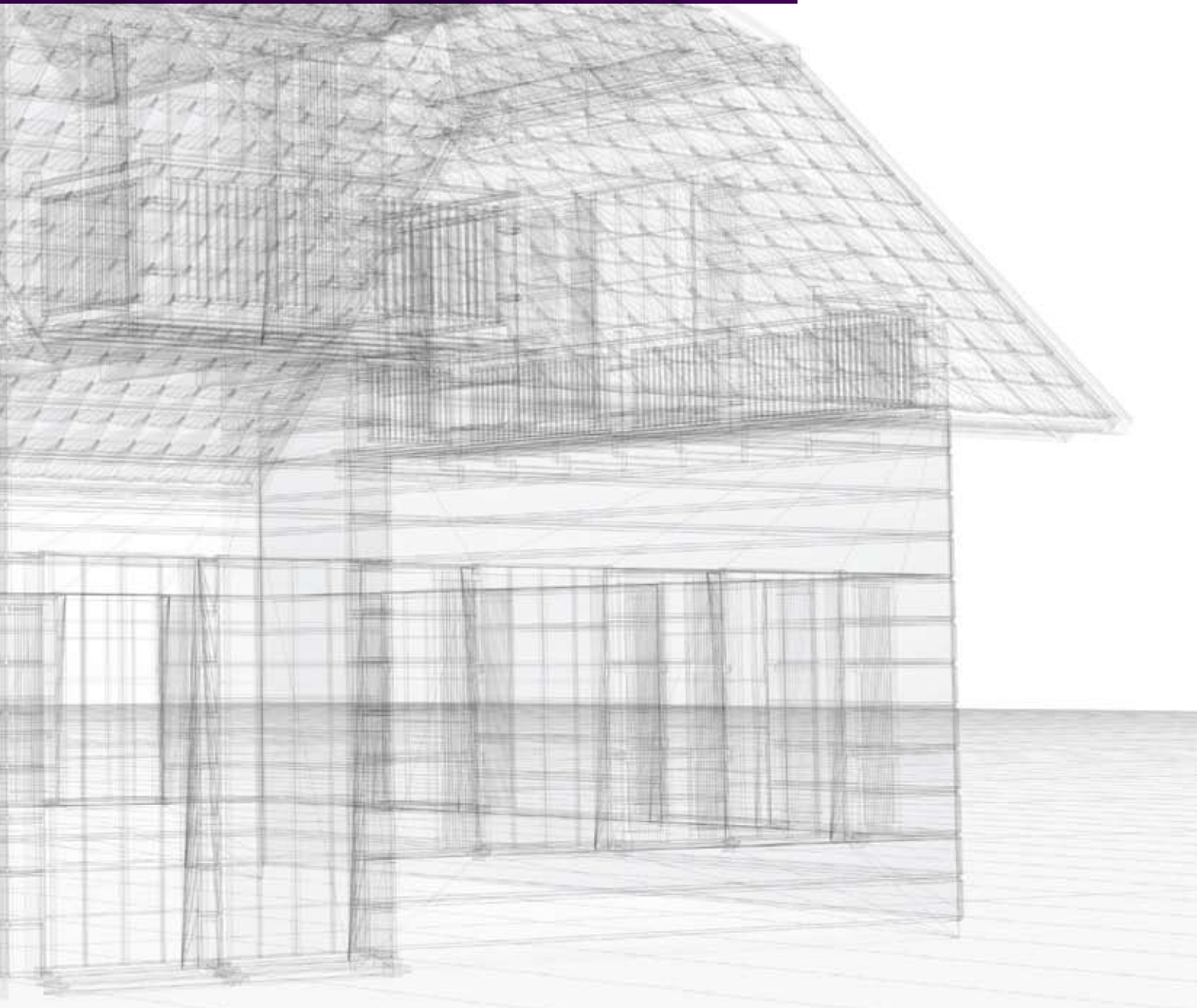
Construction details meeting the new standards are of limited use if sound energy can reach adjacent rooms by taking sound paths with a lesser resistance.

The Example Constructions document for use with the Domestic Technical Handbook Section 5: Noise contains information to address the performance of individual separating wall and floor constructions, and the flanking sound paths formed by the junctions between these separating elements.

This section provides an overview of good practice detailing for timber frame construction.

**It is not intended to fully describe the wall and floor specifications but to show the principles of the interface between elements.**

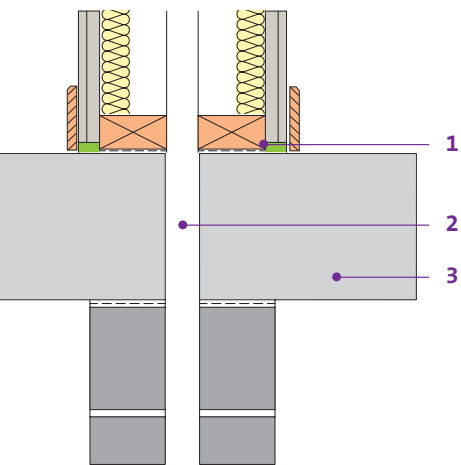
For further information, including flanking detailing for other methods of construction, please refer to **HomeSpec 5**, the **WHITE BOOK** residential sector guide, available to download from [www.british-gypsum.com/residential](http://www.british-gypsum.com/residential)



## Flanking details – Twin frame timber stud walls

### Ground floor junction

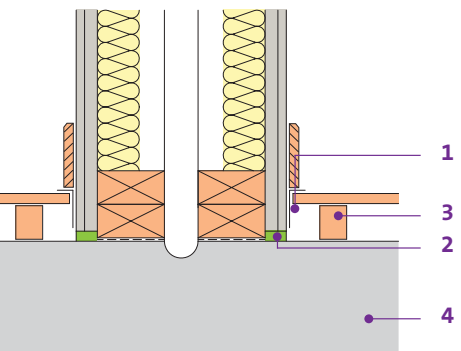
Timber floor, beam and block, pre-cast concrete plank, or cast in-situ concrete suspended slab



- ① Flexible or acoustic sealant between wall lining and floor
- ② Ground floors not continuous between dwellings
- ③ Ground floor constructions
  - Timber floor joists:
    - may span in either direction
    - floor decking may run under sole plates
    - close spaces between floor joists with full depth timber blocking where joists are at right angles to wall
  - Beam and block floor with all voids filled with mortar
  - Pre-cast concrete planks with all voids between planks and blockwork filled with mortar or flexible sealant
  - Cast in-situ concrete suspended slab

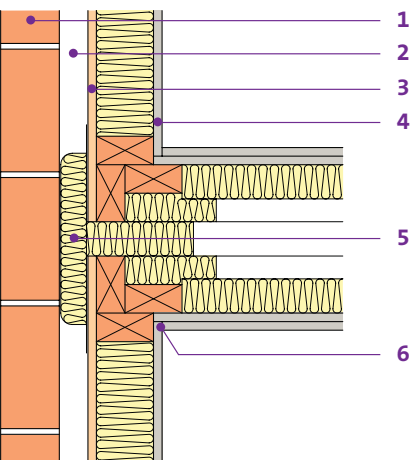
### Ground floor junction

Raft foundation



- ① 5mm foamed resilient flanking strip between walking surface and wall lining
- ② Flexible or acoustic sealant between wall lining and floor
- ③ A floating floor treatment must be used (for ground floor floating floor treatments mineral wool insulation is not required between the battens or cradle system)
- ④ Concrete raft - mass per unit area of 365kg/m<sup>2</sup> (minimum)

### External wall

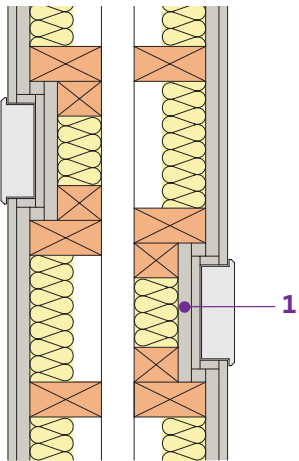


- ① Masonry outer leaf (minimum 100mm thick)
- ② External wall cavity (minimum 50mm)
- ③ Sheathing board (where necessary)
- ④ Inner leaf where there is no separating floor, e.g. for houses  
One layer of 12.5mm Gyproc WallBoard  
Inner leaf where there is a separating floor, e.g. for flats / apartments  
If using a Robust Detail floor, check that wall and floor are compatible and use two layers of 12.5mm Gyproc WallBoard
- ⑤ Close cavity with an Isover Cavity Barrier
- ⑥ Seal all perimeter joints with Gyproc jointing materials or caulk with Gyproc Sealant



D Service and sockets in the separating walls

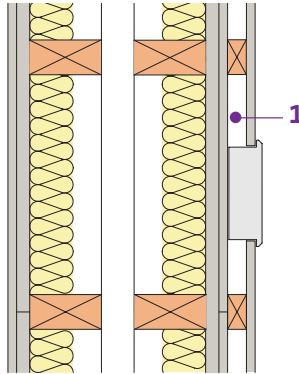
Electrical sockets, switches, etc.



- 1 Provide two or more layers of Gyproc plasterboard, i.e. a double layer of 15mm Gyproc SoundBloc, or a single layer of 19mm Gyproc Plank and a single layer of 12.5mm Gyproc WallBoard, to enclose electrical boxes
- Stagger sockets, switches, etc. on each side of the wall
- Alternatively, Hilti putty pads can be used

E Service and sockets in the separating walls

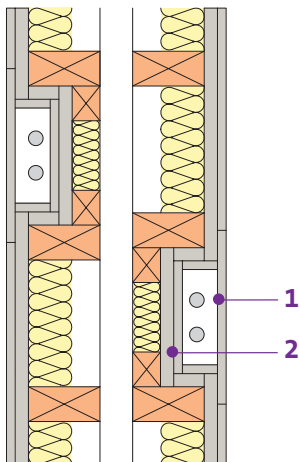
Electrical sockets, switches, etc.



- 1 As an alternative to D above, provide a service void on the surface of the separating wall. This is the preferred method where more than one socket, switch, etc. are close together, e.g. in a kitchen
- Studs or battens used to create the service zone should be securely fixed back to the separating wall structure

F Service and sockets in the separating walls

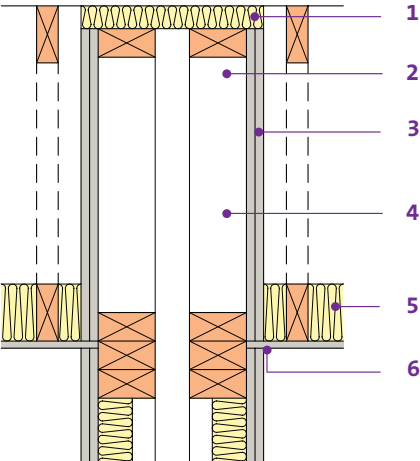
Piped services



- 1 Service void within separating wall
  - 2 Provide two or more layers of Gyproc plasterboard, i.e. a double layer of 15mm Gyproc SoundBloc, or a single layer of 19mm Gyproc Plank and a single layer of 12.5mm Gyproc WallBoard, to enclose pipes
- Stagger services on each side of the wall such that they are not positioned in opposite bays
- NB This detail is not applicable for SVPs or gas pipes

Roof junction

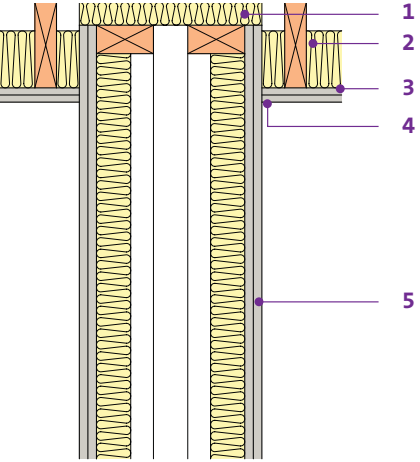
Pitched roof without room-in-the-roof



- 1 Junction between separating wall and roof filled with mineral wool
- 2 Cavity separating wall continuous to underside of roof  
External wall cavity closed at eaves level with a suitable flexible material, e.g. mineral wool.  
If a rigid material is used, then it should only be bonded to one leaf
- 3 Wall lining above ceiling can be reduced to two layers of 12.5mm Gyproc WallBoard
- 4 No insulation is required in cavity above ceiling
- 5 100mm Isover APR 1200 mineral wool insulation between ceiling joists
- 6 Seal all perimeter joints with Gyproc jointing materials or caulk with Gyproc Sealant

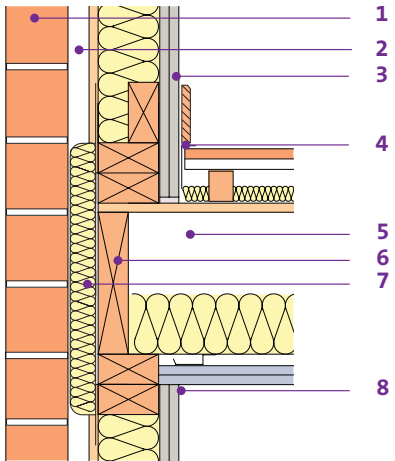
Roof junction

Pitched roof with room-in-the-roof



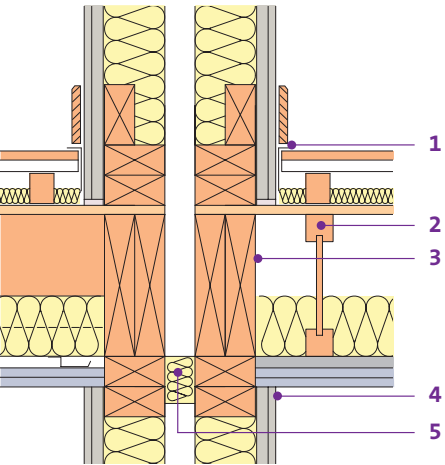
- 1 Junction between separating wall and roof filled with mineral wool
- 2 Minimum 100mm Isover Timber Frame Batt 35 insulation subject to thermal performance requirements
- 3 One layer of Gyproc ThermaLine laminate and one layer of 15mm Gyproc WallBoard subject to thermal performance requirements
- 4 Seal all perimeter joints with Gyproc jointing materials or caulk with Gyproc Sealant
- 5 Cavity separating wall continuous to underside of roof  
External wall cavity closed at eaves level with a suitable flexible material, e.g. mineral wool.  
If a rigid material is used, then it should only be bonded to one leaf

I External wall junction



- ① Masonry outer leaf
- ② External wall cavity (minimum 50mm)
- ③ Two layers 12.5mm Gyproc WallBoard
- ④ Minimum 5mm resilient flanking strip between walking surface and wall lining
- ⑤ Joists may span in either direction
- ⑥ Close spaces between floor joists with full depth timber blocking where joists are at right angles to the wall
- ⑦ Close cavity with an Isover Cavity Barrier
- ⑧ Seal all perimeter joints with Gyproc jointing materials or caulk with Gyproc Sealant

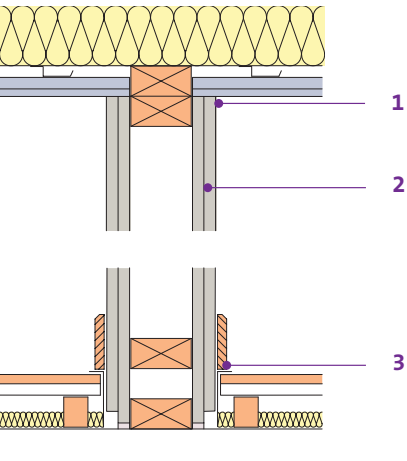
J Separating wall



- ① Minimum 5mm resilient flanking strip between walking surface and wall lining
- ② Joists may span in either direction
- ③ Close spaces between floor joists with full depth timber blocking where joists are at right angles to the wall
- ④ Seal all perimeter joints with Gyproc jointing materials or caulk with Gyproc Sealant
- ⑤ Close cavity with an Isover Cavity Barrier

K Internal wall

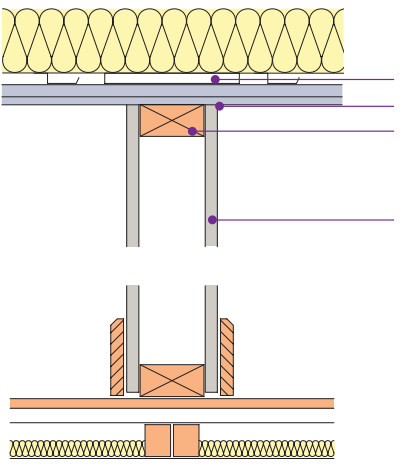
Loadbearing



- ① Seal all perimeter joints with Gyproc jointing materials or caulk with Gyproc Sealant
- ② Where required internal wall to comply with Domestic Technical Handbook Section 5: Noise, Standard 5.2
- ③ Minimum 5mm resilient flanking strip between walking surface and wall lining

L Internal wall

Non-loadbearing



- ① Gypframe RB1 Resilient Bar nogging
- ② Seal all perimeter joints with Gyproc jointing materials or caulk with Gyproc Sealant
- ③ Head plate fixed to Gypframe RB1 Resilient Bar nogging
- ④ Where required internal wall to comply with Domestic Technical Handbook Section 5: Noise, Standard 5.2



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