This section includes updated information, added since it was first published in December 2015.
Last updated 29/03/2018

C07. S05. P02 – P16
GypLyner IWL

Including C07. S01. P02 – P04

Linings introduction

Linings

This section contains our wall and roof lining systems, covering all applications, from a basic wallboard lining through to high performance linings designed to meet thermal and sound insulation, fire protection, or impact resistance requirements

Linings

British Gypsum systems provide high quality internal linings. They cater for a variety of wall and roof constructions, including metal frame and traditional masonry. Linings can be fully or partially independent of the structure, or can simply be bonded or plastered directly to a wall surface. These products are used in all types of buildings and are equally suited to both new-build and refurbishment work.

Each system section takes you through the process of selecting an appropriate lining to achieve a high performing, quality finish:

System cavity width (mm)	Performance			Method of fixing to wall	System	Page
	fire	Acoustic	Thermal			
-	✓	-	-	Direct[1]	Plaster systems	C07. S02. P02
10 - 25	-	-	✓	Gyproc DriWall Adhesive dabs	**DriLyner BASIC**	C07. S03. P03
10 - 25	-	-	✓	Gyproc DriWall Adhesive dabs with Gyproc Nailable Plugs	**DriLyner TL**	C07. S03. P04
20 - 25	-	-	✓[3]	Gypframe MF10 Channels fixed using Gyproc DriWall Adhesive dabs	**DriLyner MF**	C07. S03. P06
2 - 3	-	✓	✓	Gyproc Sealant blobs with Gyproc Nailable Plugs	**DriLyner RF**[2]	C07. S03. P07
25 - 125	-	✓	✓	Gypframe GL2 or GL9 Brackets mechanically fixed	**GypLyner UNIVERSAL**	C07. S04. P02
60 minimum	✓	✓	✓	Independent of wall	**GypLyner IWL**	C07. S05. P02
-	✓[3]	✓[3]	✓	Direct screw-fix to timber[1]	Room-in-the-roof	C07. S06. P02

[1] Walls and ceilings.
[2] **DriLyner RF** system is intended for upgrade purposes.
[3] Performances not included within this section. Contact the British Gypsum Technical Advice Centre for more information 0844 800 1991.

Enhancing the built environment

British Gypsum offers a range of systems to deliver rooms and buildings that offer superior levels of living comfort and sustainability.

Thermal improvement

British Gypsum has a wide range of Gyproc ThermaLine laminate plasterboards to achieve thermal performance for all projects; from basic regulatory requirements to the most stringent, high performance levels. Buildings that have high levels of thermal insulation cost less to run, reduce CO_2 emissions and improve occupier comfort.

Acoustic improvement

British Gypsum has a wide range of wall lining systems that offer a number of acoustic performances. Improvements in the acoustic environment of a building can lead to a number of occupant benefits, including enhanced student learning, improved patient recovery, optimised employee productivity and harmonious family living.

Good practice specification guidance

It is well recognised in the construction industry that there is an issue with buildings not performing as intended when it comes to energy efficiency, often referred to as the 'Performance Gap'.

In order to minimise this risk there are two key areas of system design and installation to which particular attention should be paid; airtightness and thermal bridging.

To maximise the performance achieved on site, consider the following good practice specification guidance:

— In order to reduce heat loss via convection currents, it is important to seal the perimeter of the insulating element. To achieve best performance, a continuous fillet / ribbon of Gyproc DriWall Adhesive or Gyproc Sealant should be applied to the wall perimeter and around all services and openings as board fixing proceeds, as per individual system design guidance

— Air leakage through blockwork can be significant, particularly through incomplete mortar joints. Air passing through the wall will take heat energy with it, reducing the thermal efficiency of the wall. A continuous 6mm coat of Gyproc SoundCoat, applied to the face of the masonry prior to the installation of **DriLyner** systems, will seal hidden air paths often found in mortar joints between blocks or bricks. For improved acoustic performance, the Gyproc SoundCoat should not be trowelled smooth

— Walls must be weathertight and free from dampness before any **DriLyner** or plaster system can be installed

— It is important to achieve as consistent a level of insulation performance as possible across a building element. Areas with less insulation, known as cold bridges, will be prone to attracting condensation and, as a result could promote mould growth. Consideration should be given to minimising the occurrence of cold bridges, for example by applying thermal laminates to lintels and window reveals

Table 1a – AD L1A

AD L1A - New dwellings	ENGLAND		WALES	
	U-value (W/m²K)		U-value (W/m²K)	
	Limiting fabric parameters	Concurrent notional dwelling specification	Worst acceptable fabric performance	Elemental specification
Wall	0.30	0.18	0.21	0.18
Party Wall	0.20	0.00	0.20	0.00

Table 1b – AD L2A

AD L2A - New buildings other than dwellings	ENGLAND		WALES	
	U-value (W/m²K)		U-value (W/m²K)	
	Limiting fabric parameters	Concurrent notional dwelling specification	Worst acceptable fabric performance	Elemental specification
Wall	0.35	0.26	0.35	0.26

Table 2a – AD L1B

Existing dwellings	ENGLAND		WALES	
	U-value (W/m²K)		U-value (W/m²K)	
	New thermal elements (including replacements for existing elements)	Upgrading retained thermal elements	New thermal elements (including replacements for existing elements and non-exempt Conservatories & Porches)	Upgrading retained thermal elements
Wall	0.28	0.30	0.21	0.30

Table 2b – AD L2B

Existing buildings other than dwellings	ENGLAND		WALES			
	U-value (W/m²K)		U-value (W/m²K)			
	New thermal elements (including replacements for existing elements)	Upgrading retained thermal elements	New thermal elements (including replacements for existing elements)			Upgrading retained thermal elements
			Buildings essentially domestic in character, e.g. student accommodation, care homes	All other buildings	Conservatories and Porches	
Wall	0.28	0.30	0.21	0.26	0.28	0.30

Table 3a – TECHNICAL HANDBOOK SECTION 6 (Domestic)

New buildings	SCOTLAND	
	U-value (W/m²K)	
	Maximum	Notional dwelling, package of measure
Wall	0.22	0.17
Cavity separating wall	0.20	0.00

Table 3b – TECHNICAL HANDBOOK SECTION 6 (Non-Domestic)

New buildings	SCOTLAND			
	U-value (W/m²K)			
	Maximum		Notional building	
	Fully fitted building	Shell only	Heated and naturally ventilated	Heated and mechanically ventilated / Cooled
Wall	0.27	0.23	0.23	0.20

Table 4a – TECHNICAL HANDBOOK SECTION 6 (Domestic)

Existing buildings	SCOTLAND		
	U-value (W/m²K)		
	Extensions (and conversion of previously unheated buildings)		Conversion of heated buildings (and conservatories)
	Existing building U-values worse than 0.70 for walls and 0.25 for the roof	Existing building U-values equal/better than 0.70 for walls and 0.25 for the roof	
Wall	0.17	0.22	0.30

Table 4b – TECHNICAL HANDBOOK SECTION 6 (Non-domestic)

Existing buildings	SCOTLAND	
	U-value (W/m²K)	
	Extensions (and conversion of previously unheated buildings)	Conversion of heated buildings
Wall	0.25	0.30

GypLyner IWL

Independent wall lining system

All our systems are covered by **SpecSure®** when using genuine British Gypsum and Saint-Gobain Isover products

GypLyner IWL

GypLyner IWL independent wall lining is a lightweight, non-loadbearing system, which is built independently of the external wall construction. **GypLyner IWL** is particularly suitable for buildings where fixing into the background is difficult or not possible. The lining provides fire resistance and acoustic upgrades to structural steel sections clad with lightweight metal sheeting, and can also be used in within new or existing masonry walls to increase sound insulation and meet stringent thermal performance requirements.

30 – 90 mins

59 – 61 R_w dB

0.35 – 0.16 W/m²K

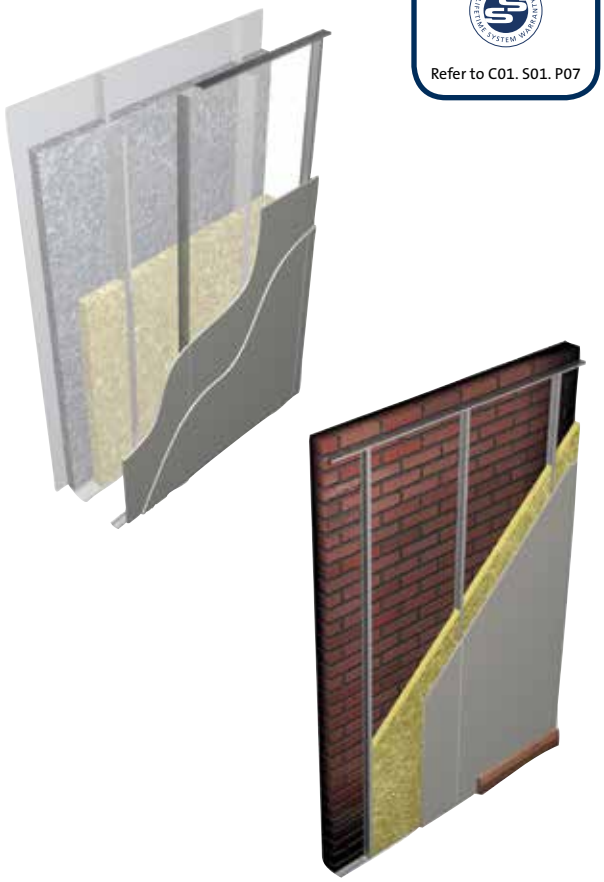
ACTIV air

System can be skim finished with Thistle PureFinish. Refer to C02. S01. P49

Refer to C01. S01. P07

Key benefits

- Totally independent from wall with fixings to floor and soffit only, particularly suitable for basements with waterproof tanking
- Any surface irregularities within the external wall construction are completely removed through the totally independent framework
- Services are easily incorporated within the framework with no limitation to the cavity size that can be created
- A wide range of U-values can be achieved to suit project requirements through our extensive selection of Gyproc ThermaLine laminate types and thicknesses
- Minimal thermal bridging due to the use of a totally independent framework
- Provides a high-performance option to achieve enhanced acoustic performance and fire protection to steel, in one lining solution



You may also be interested in...

ShaftWall

If you require fire resistance greater than 90 minutes and/or fire resistance in both directions.

▶ Refer to C05. S02. P02 – **ShaftWall**.

GypLyner IWL performance

Table 1a - GypLyner IWL maximum heights[1] for Gypframe 'I' Studs at 600mm centres

Stud type	12.5mm boards maximum heights		15mm boards maximum heights		Gyproc ThermaLine laminates
	single mm	double mm	single mm	double mm	single mm
Gypframe 48 I 50	2400	2700	2400	2800	2400
Gypframe 60 I 50	2400	3000	2700	3300	2400
Gypframe 60 I 70	3000	3600	3300	3900	3000
Gypframe 70 I 70	3600	4200	3900	4300	3600
Gypframe 92 I 90	5100	5700	5400	5800	5100
Gypframe 146 I 80	6900	7200	7200	7500	6900

Table 1b - GypLyner IWL maximum heights[1] for Gypframe 'I' Studs at 300mm centres

Stud type	12.5mm boards maximum heights		15mm boards maximum heights		Gyproc ThermaLine laminates
	single mm	double mm	single mm	double mm	single mm
Gypframe 48 I 50	3000	3400	3000	3600	3000
Gypframe 60 I 50	3000	3800	3400	4300	3000
Gypframe 60 I 70	3800	4500	4200	4900	3800
Gypframe 70 I 70	4500	5200	4900	5500	4500
Gypframe 92 I 90	6400	7100	6800	7200	6400
Gypframe 146 I 80	8700	9000	9100	9500	8700

▶ For further assistance in choosing the right solution for your project, try the White Book System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to british-gypsum.com

[1] Based on a limiting deflection of L/240 at 200 Pa.

NB For heights below 4200mm the appropriate Gypframe Folded Edge Standard Floor and Ceiling Channel (FEC) can be used. For heights between 4200mm and 8000mm, Gypframe Deep Flange Floor and Ceiling Channel (DC) should be used (subject to deflection criteria). For heights above 8000mm, Gypframe Extra Deep Flange Floor and Ceiling Channel (EDC) should be used (subject to deflection criteria).

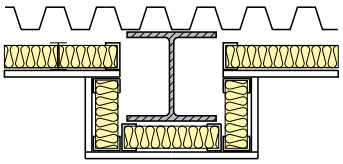
GypLyner IWL fire performance

Linings to steel clad external walls[1]

For details of when to specify fire resistance using EN / BS
▶ Refer to **C02. S01. P05**

Table 2 - Solutions to satisfy the requirements of *BS EN 1364-1* and *BS 476: Part 22: 1987*

1



Board linings to one side of Gypframe 'I' Stud framework and 50mm Isover Steel Frame Infill Batts, forming an independent lining to structural steel columns, in association with external steel cladding (0.6mm). Linings as in table.

Detail	Board type[2]	Lining thickness mm	Duty rating	System reference
Fire resistance - 30 minutes integrity[4]: 30 insulation[3 4] EN BS				
1	Gyproc WallBoard	2 x 12.5	Severe	B216003
1	Gyproc SoundBloc	2 x 12.5	Severe	B216003
1	Gyproc WallBoard	2 x 15	Severe	B216004
1	Gyproc SoundBloc	2 x 15	Severe	B216004
Fire resistance - 60 minutes integrity[4]: 30 insulation[3 4] EN BS				
1	Gyproc FireLine	1 x 12.5	Medium	B216025
1	Gyproc FireLine	1 x 15	Heavy	B216026
Fire resistance - 90 minutes integrity[4]: 30 insulation[3 4] EN BS				
1	Gyproc FireLine	2 x 12.5	Severe	B216027
1	Gyproc FireLine	2 x 15	Severe	B216028

▶ For further assistance in choosing the right solution for your project, try the White Book System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to british-gypsum.com

[1] The fire resistances apply to external walls, whose construction incorporates structural steel sections with a profiled steel cladding, when the inside of the wall is exposed to fire.
[2] For improved durability and impact resistance, the outer layer of board can be replaced with a layer of Gyproc DuraLine.
[3] Where the external wall is more than 1m from the boundary, Building Regulations allow relaxation of the provision for insulation to 15 minutes in certain circumstances.
[4] The figures quoted relate to the complete wall structure including the external cladding. The lining also offers fire protection to steel columns from the lining side, subject to A/V (Hp/A) factor. Refer to table 3.

NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, or skimmed according to British Gypsum's recommendations. The quoted performance (from the underside to the ceiling plenum only) are achieved only if British Gypsum and Saint-Gobain Isover components are used throughout, and the company's fixing recommendations are strictly observed. Any variation in the specification should be checked with British Gypsum.

GypLyner IWL fire performance (continued)

Fire protection of structural steel

For details of when to specify fire resistance using EN / BS
▶ Refer to **C02. S01. P05**

EN BS

Table 3 - Solutions to satisfy the requirements of *DD ENV 13381-2: 2002* and *BS 476: Part 21: 1987*

Board type	Lining thickness mm	Fire protection mins	Section factor[1] A/V (Hp/A)m^{-1}
Gyproc FireLine	1 x 12.5	30	Up to 300
Gyproc DuraLine	1 x 15	30	Up to 300
Gyproc WallBoard or Gyproc SoundBloc	2 x 12.5	30	Up to 300
Gyproc FireLine	1 x 12.5	60	Up to 165 (BS only)
Gyproc FireLine	2 x 12.5	60	Up to 300
Gyproc SoundBloc	2 x 15	60	Up to 300
Gyproc FireLine	2 x 12.5	90	Up to 200 (BS only)
Gyproc FireLine or Gyproc DuraLine	2 x 15	90	Up to 300

▶ For further assistance in choosing the right solution for your project, try the White Book System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to british-gypsum.com

[1] Based on four-sided exposure. Protection is afforded to universal column sections as described in *BS 4: Part 1*. Based on critical temperature 550°C (information on other critical temperatures is available). A 10mm air gap is required between the back of the board and the face of the structural steel.

NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, or skimmed according to British Gypsum's recommendations. The quoted performance (from the underside to the ceiling plenum only) are achieved only if British Gypsum and Saint-Gobain Isover components are used throughout, and the company's fixing recommendations are strictly observed. Any variation in the specification should be checked with British Gypsum.

You may also be interested in...

If you require steel sections to the encased individually the following options are available:

GypLyner ENCASE
For protection to structural steel for up to 180 minutes.
▶ Refer to C03. S03. P02 – **GypLyner ENCASE**

FireCase
For frameless protection to structural steel for up to 120 minutes.
▶ Refer to C03. S02. P02 – **FireCase**

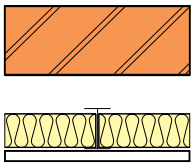
GypLyner IWL acoustic performance

Linings for sound and thermal insulation

For details of when to specify fire resistance using BS ▶ Refer to **C02. S01. P05**

Table 4 - Solutions to satisfy requirements of *BS 476: Part 21: 1987*

1



Solid brick wall (103mm) of density 1700kg/m³ with single or double layer board to one side of Gypframe 'I' Stud framework and 50mm Isover Steel Frame Infill Batts forming an independent lining. Linings as in table.

Detail	Board type	Lining thickness mm	Sound insulation[2] R_w ($R_w + C_{tr}$)	Duty rating	Approx. weight kg/m²	System reference
30 minutes fire resistance[1] BS						
1	Gyproc WallBoard	1 x 12.5	59 (51)	Medium	11	B216001
1	Gyproc WallBoard	1 x 15	59 (51)	Medium	13	B216002
1	Gyproc WallBoard	2 x 12.5	61 (54)	Severe	20	B216031
1	Gyproc WallBoard	2 x 15	61 (54)	Severe	23	B216033

▶ For further assistance in choosing the right solution for your project, try the White Book System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to british-gypsum.com

[1] The fire resistance quoted is that provided by the masonry wall without contribution from the lining.
[2] Existing solid masonry wall of density 1700kg/m³ achieving R_w 45dB prior to lining, and with a 10mm cavity between masonry and back of metal framing.

NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, or skimmed according to British Gypsum's recommendations. The quoted performance (from the underside to the ceiling plenum only) are achieved only if British Gypsum and Saint-Gobain Isover components are used throughout, and the company's fixing recommendations are strictly observed. Any variation in the specification should be checked with British Gypsum Technical Advice Centre.

Table 5 - GypLyner IWL U-values for external claddings with linings / insulation combinations - based on well vented external cladding cavity

External cladding	Board type	Lining thickness mm	Isover Steel Frame Infill Batts	U-value W/m²k (minimum)
Curtain walling / concrete cladding / panels / brickwork / blockwork, etc	Gyproc ThermaLine PIR	53	50mm (with Gypframe 48 I 50 'I' Studs)	0.35
	Gyproc ThermaLine SUPER	50	50mm (with Gypframe 48 I 50 'I' Studs)	0.34
	Gyproc ThermaLine PIR	63	50mm (with Gypframe 48 I 50 'I' Studs)	0.31
	Gyproc ThermaLine SUPER	60	50mm (with Gypframe 48 I 50 'I' Studs)	0.30
	Gyproc ThermaLine SUPER	70	50mm (with Gypframe 48 I 50 'I' Studs)	0.26
	Gyproc ThermaLine PIR	78	50mm (with Gypframe 48 I 50 'I' Studs)	0.26
	Gyproc ThermaLine PIR	93	50mm (with Gypframe 48 I 50 'I' Studs)	0.23
	Gyproc ThermaLine PIR	93	75mm (with Gypframe 70 I 70 'I' Studs)	0.21
	Gyproc ThermaLine SUPER	80	100mm (with Gypframe 92 I 90 'I' Studs)	0.20
	Gyproc ThermaLine SUPER	90	100mm (with Gypframe 92 I 90 'I' Studs)	0.18
	Gyproc ThermaLine SUPER	80	2 x 75mm (with Gypframe 146 I 80 'I' Studs)	0.17
	Gyproc ThermaLine SUPER	90	2 x 75mm (with Gypframe 146 I 80 'I' Studs)	0.16

▶ For U-value calculations tailored to your project, try the online tool at british-gypsum.com

GypLyner IWL design

Building design

Whilst **GypLyner IWL** lining systems are non-loadbearing, they are able to provide resistance to levels of horizontal non-uniformly distributed loads.

▶ Refer to C02. S01. P26 – Robustness.

Planning - key factors

GypLyner IWL comprises of Gypframe 'I' Studs installed at 600mm centres with Gypframe Floor & Ceiling Channels to receive board to one side. The position of services should be pre-determined and their installation planned into the frame erection stage. It is important that all parts of the lining system, including the thermal insulation, should remain independent of the external walling. The lining is erected with the external walling in place and the windows and doors fixed.

Important information

Walls must be free from damp before the **GypLyner IWL** system can be installed.

Extended heights

Where the wall height exceeds the available length of the Gypframe 'I' Stud, sections of stud can be spliced together to the required length using 600mm lengths of the appropriate floor and ceiling channel, fixed with four British Gypsum Wafer Head Drywall Screws in each flange to each side.

▶ Refer to construction detail 2.

Where greater heights than listed in table 1a and 1b are required, it may be possible to brace the lining back to the structure. Note that the system is non-loadbearing and should not be used to provide lateral restraint to masonry or other external wall constructions.

Junction with a suspended ceiling

Where a **GypLyner IWL** system is to be fixed to the framework of a **CasoLine MF** ceiling, in accordance with British Gypsum's installation instructions, it's permissible maximum height is equal to that of where it is fixed direct to a structural soffit of the same height.

In situations where a **GypLyner IWL** system passes through a **CasoLine MF** ceiling, which is to one side of the lining and appropriately fixed to both this lining and perimeter partitions / walls, consideration can be given to the lateral restraint provided by the ceiling when developing the lining specification.

The relevant maximum height is the greater of the floor to **CasoLine MF** ceiling or ceiling to structural soffit height. Care should be taken during installation of tall linings so as to not adversely affect their performance.

Acoustic performance

GypLyner IWL can be used as an independent lining to improve the sound insulation of new or existing masonry walls. Acoustic testing on a basic masonry wall construction achieving R_w 45dB sound insulation gave a 14dB improvement when the wall was lined with **GypLyner IWL**. A 16dB improvement was achieved with a double layer lining incorporating Isover insulation. Refer to table 4. Careful detailing is required at junctions with sound insulating partitions in order to maintain acoustic performance.

▶ Refer to construction detail 6.

Handy hint

A continuous coat of 6mm Gyproc Soundcoat Plus, applied to the face of the masonry prior to the installation of **DriLyner** systems, will seal hidden air paths often found in mortar joints between blocks or bricks. For improved acoustic performance, the Gyproc Soundcoat Plus should not be trowelled smooth.

Cavity fire barriers

Cavity fire barriers should be included where necessary. If both sides of the cavity are formed by non-combustible or Class 0 materials, barriers are necessary only every 20m. The nature of the barrier and its fixing should not detract from the general performance of the wall.

Fixing floor and ceiling channels

Gypframe Floor & Ceiling Channels must be securely fixed with a row of fixings at 600mm maximum centres. For 94mm and 148mm channels, two rows of staggered fixings are required, each row at 600mm centres and each fixing 25mm in from the flange. If the floor is uneven, a 38mm thick timber sole plate equal to the width of the channel should be used.

If the concrete or screeded floor is new, consideration should be given to the installation of a damp-proof membrane between the floor surface and the channel or sole plate.

Important information

The inclusion of control joints should be considered.

▶ Refer to C02. S01. P30 – Robustness, and construction details 7-8 within this section.

GypLyner IWL design (continued)

Deflection heads

The system can accommodate deflection at the head with suitable detailing incorporating Gypframe Deep Flange or Extra Deep Flange Floor & Ceiling Channels.

▶ Refer to C02. S01. P10 and C07. S05. P09 – construction detail 4.

Damp or rain penetration

In refurbishment projects, where damp or rain penetration may exist, normal corrective measures, such as a new damp course, tanking, or external wall coating, must be taken prior to the installation of the dry internal lining. The cavity between the external wall and the lining system could be drained and ventilated to the outside.

Thermal performance

Uncontrolled air movement through the drylining cavity can result in excessive heat loss from the building. This can be reduced in practice if the abutting elements and the background are well fitted, and junctions are sealed. The designer should also specify a method of restricting air movement around the perimeter of suspended timber floors, such as the provision of a flexible seal between the floor and walls.

Condensation and water vapour resistance

Gyproc WallBoard DUPLEX and some Gyproc ThermaLine laminates offer significant resistance to water vapour transmission. The application of two coats of Gyproc Drywall Sealer to Gyproc WallBoard, Gyproc Moisture Resistant or Gyproc ThermaLine BASIC after installation and jointing provides a water vapour resistance of at least 15MNs/g.

The use of Gyproc WallBoard DUPLEX or Gyproc ThermaLine laminates with integral vapour control, or supplemented with a vapour control layer treatment such as two coats of Gyproc Drywall Sealer, significantly reduces the risk of interstitial condensation.

It is important, particularly in new buildings, that external walls are properly dried out before a vapour control layer is provided, otherwise moisture may be trapped, impairing the performance of the construction.

Solid masonry wall - internal insulation

We reference to the use of Hygrothermal properties of buildings components within modelling software, and in compliance with BE EN 5250 (August 2016), we now recommend specialist guidance to be obtained prior to commencing the installation of internal insulation to solid masonry walls in order to determine the effects of condensation and moisture within the building fabric. This area of expertise is documented within BS 5250 'Code of practice for the control of condensation of building components and building elements - Assessment of moisture transfer by numerical simulation.'

Insulation

Isover Steel Frame Infill Batts are inserted to a friction-fit within the stud cavity. The slabs are self-supporting, receiving internal support from the stud flanges, except where 50mm insulation is fitted into Gypframe 92 I 90 or 146 I 80 'I' Studs. In this case, a 150mm x 50mm strip of Isover Steel Frame Infill Batts is inserted to retain the slab. With Gypframe 146 I 80 'I' Stud, two strips of insulation should be inserted to retain the slab.

Services

The stud cut-outs can be used for services provided that the Isover insulation remains in place. The positioning of stud cut-outs is shown in construction detail 1.

Surface mounted services should be located against the plasterboard lining, and fixed through the lining to the stud framework. Any interruptions in the lining integrity will downgrade its performance. The installation of electrical services should be carried out in accordance with *BS 7671*.

Fixtures

Lightweight fixtures can be made directly to the partition linings. Medium weight fixtures can be made to Gypframe 99 FC 50 Fixing Channel. Heavyweight fixtures (to *BS 5234*), such as wash basins and wall cupboards, can be fixed using plywood secured with Gypframe Service Support Plates.

▶ Refer to C02. S01. P33 – Service installations.

Board finishing

▶ Refer to C08. S01. P02 – Finishes.

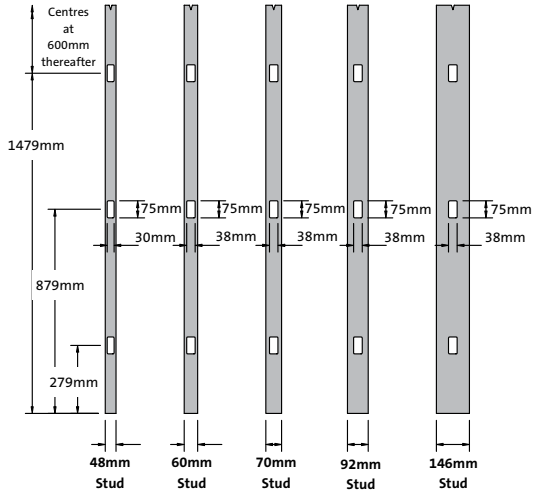
Tiling

Tiles up to 32kg/m² can be applied to the surface of lightweight wall lining systems. For further details on tiling guidance:

▶ Refer to C08. S04. P02 – Tiling.

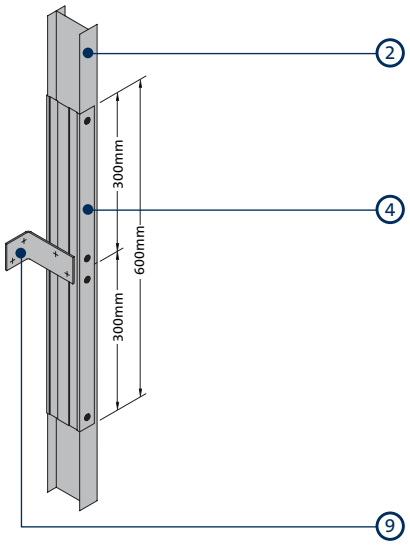
GypLyner IWL construction details

1



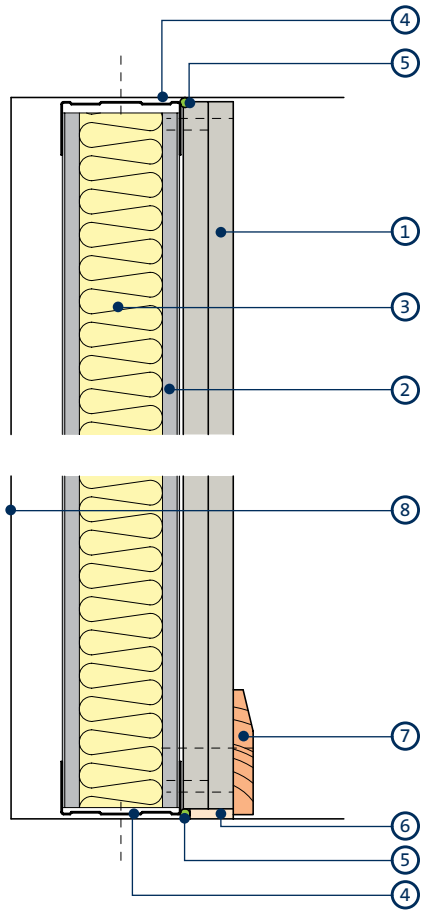
Service cut-outs - Gypframe 'C' Studs and Gypframe 'I' Studs

2



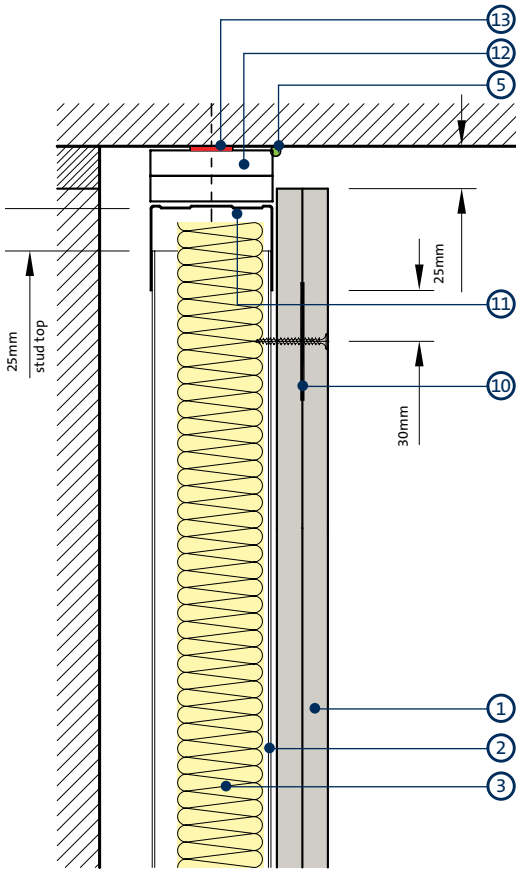
Gypframe 'I' Stud / splicing and bracing

3



Head and base

4

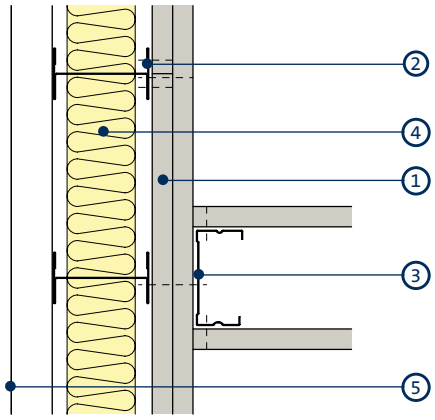


25mm deflection head

1 Gyproc plasterboard
2 Gypframe 'I' Stud
3 Isover Insulation
4 Gypframe Folded Edge Standard Floor & Ceiling Channel
5 Gyproc Sealant
6 Bulk fill with Gyproc jointing materials (where gap exceeds 5mm)
7 Skirting
8 Wall structure
9 Suitable size angle brace by others
10 Gypframe GFS1 Fixing Strap
11 Gypframe 72 DC 60 Deep Flange Floor & Ceiling Channel
12 Glasroc F FIRECASE
13 Gyproc FireStrip

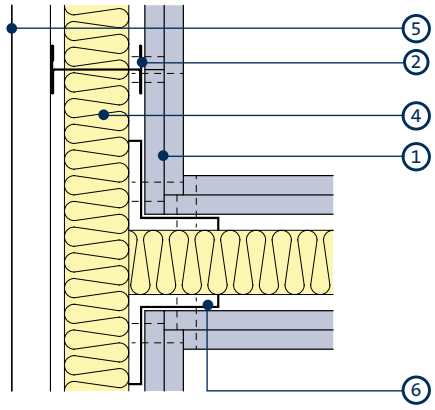
GypLyner IWL construction details (continued)

5



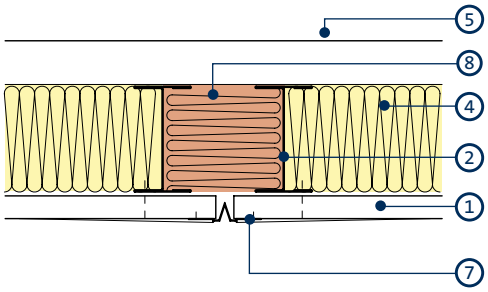
Partition junction

6



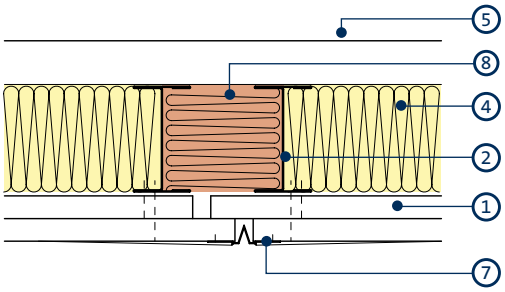
Partition junction to optimise acoustic performance and reduce flanking transmission

7



Gyproc control joint - single board

8

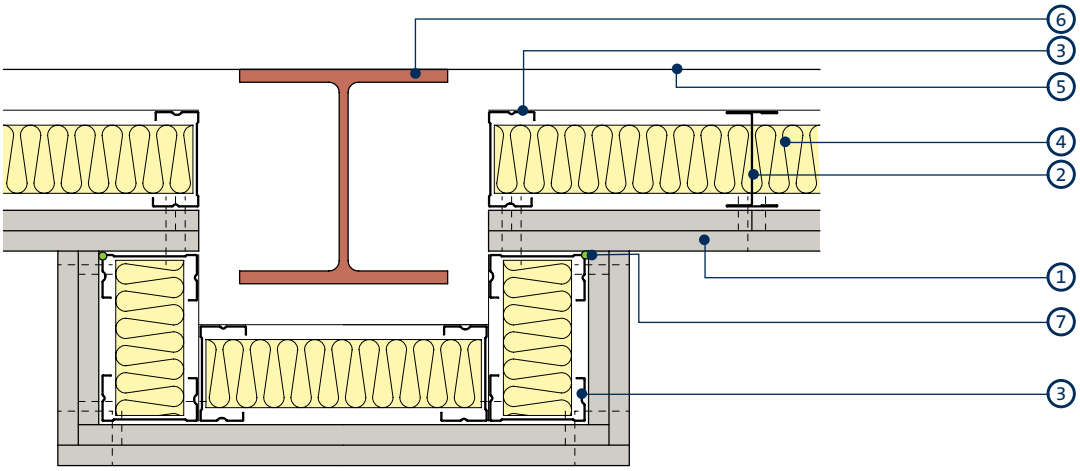


Gyproc control joint - double board

1 Gyproc plasterboard
2 Gypframe 'I' Stud
3 Gypframe 'C' Stud
4 Isover insulation
5 Wall structure
6 Gypframe GA5 Internal Fixing Angle
7 Gypframe Control Joint
8 Stone mineral wool

GypLyner IWL construction details (continued)

9

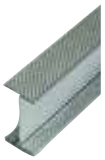


Lining around steel column

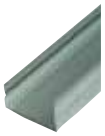
1 Gyproc plasterboard
2 Gypframe 'I' Stud
3 Gypframe 'C' Stud
4 Isover Insulation
5 Wall structure
6 Steel column
7 Gyproc Sealant

GypLyner IWL system components

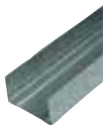
Gypframe metal components (▶ Refer to section C10. S02. P02 for details)



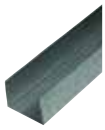
Gypframe 'I' Studs (48 I 50, 60 I 50, 60 I 70, 70 I 70, 92 I 90, 146 I 80)
Enhanced strength stud that allows for lining height, without increasing lining width. Designed to receive fixing of board to one side only.



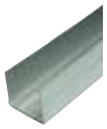
Gypframe 'C' Studs (48 S 50, 60 S 50, 70 S 50, 92 S 50, 146 S 50)
Vertical stud providing acoustic and structural performances designed to receive fixing of board. Used at openings and abutments.



Gypframe Folded Edge Standard Floor & Ceiling Channels (50 FEC 50, 62 FEC 50, 72 FEC 50, 94 FEC 50, 148 FEC 50)
Standard floor and ceiling channels for retaining the Gypframe studs at floor and ceiling junctions and around openings to heights not exceeding 4200mm.

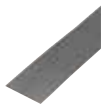


Gypframe Deep Flange Floor & Ceiling Channels (50 DC 60, 62 DC 60, 72 DC 60, 94 DC 60, 148 DC 60)
Floor and ceiling channels with deep flanges for retaining the Gypframe studs at floor and ceiling junctions for partitions 4200mm to 8000mm high. Also used around openings and in deflection heads (maximum 30mm deflection).

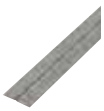


Gypframe Extra Deep Flange Floor & Ceiling Channels (50 EDC 70, 72 EDC 80, 94 EDC 70, 148 EDC 80)
Floor and ceiling channels with extra deep flanges for retaining the Gypframe studs at floor and ceiling junctions for partitions over 8000mm high. Also used around openings and in deflection heads (maximum 50mm deflection).

Gypframe 99 FC 50 Fixing Channel
A versatile metal fixing channel used to support medium weight fixtures on walls.

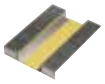


Gypframe GFS1 Fixing Strap
Used to support horizontal board joints.



Gypframe GFT1 Fixing T
Used to support horizontal board joints. Best suited for single board solutions.

Gypframe GA5 Internal Fixing Angle
Steel angle providing framing stability and board support.



Gypframe Service Support Plate
For installation of 18mm plywood within a partition cavity to support medium to heavyweight fixtures.

GypLyner IWL system components (continued)

Board products (▶ Refer to section C10. S03. P02 for details)

Gyproc WallBoard[1 2]
Standard gypsum plasterboard.

Gyproc ThermaLine PIR
Gypsum plasterboard bonded to a polyisocyanurate foam insulant with integral vapour control layers for an advanced level of thermal insulation.

Gyproc FireLine[1 2]
Gypsum plasterboard with fire resistant additives.

Gyproc ThermaLine SUPER
Gypsum plasterboard bonded to a phenolic foam insulant with an integral vapour control layer for an enhanced level of thermal insulation.

Gyproc SoundBloc[1]
Gypsum plasterboard with a high density core for enhanced sound insulation performance.

Glasroc H TILEBACKER[3]
Non-combustible glass-reinforced gypsum board with a water resistant pre-primed acrylic coating to receive tiling.

Gyproc DuraLine[1]
Gypsum plasterboard with fire resistant additives and a high density core for enhanced sound insulation and impact resistance performance.

Glasroc F FIRECASE
Non-combustible glass-reinforced gypsum board. Used to form deflection head.

[1] Also available in Moisture Resistant (MR) version. MR boards are specified in intermittent wet use areas.
[2] Also available in DUPLEX grades where vapour control is required.
[3] Glasroc H TILEBACKER is suitable for use in high moisture environments.

Fixing products (▶ Refer to section C10. S04. P02 for details)

British Gypsum Drywall Screws
Corrosion resistant self-tapping steel screws for fixing board to metal framing less than 0.8mm thick ('I' studs less than 0.6mm thick).

British Gypsum Collated Drywall Screws
Corrosion resistant self-tapping steel screws for fixing board to metal framing less than 0.8mm thick ('I' studs less than 0.6mm thick).

British Gypsum Jack-Point Screws
For fixing boards to Gypframe metal framing 0.8mm thick or greater ('I' studs 0.6mm thick and greater).

British Gypsum Wafer Head Drywall Screws
Corrosion resistant self-tapping steel screws for fixing metal to metal framing less than 0.8mm thick ('I' studs less than 0.6mm thick).

British Gypsum Wafer Head Jack-Point Screws
Corrosion resistant self-tapping steel screws for fixing metal to metal framing 0.8mm thick or greater ('I' studs 0.6mm thick and greater).

GypLyner IWL system components (continued)

Plasterboard accessories (▶ Refer to section C10. S05. P02 for details)

Gyproc Sealant
Used to seal air paths for optimum sound insulation.

Gyproc Control Joint
To accommodate structural movement of up to 7mm.

Gyproc Jointing Material
Jointing compounds, ready mixes and adhesives for reinforcement and finishing of board joints. Primer and sealers for treatment of boards for pre-decoration.

Gyproc FireStrip
A soft extruded linear intumescent gap sealer to maintain fire resistance located directly to the underside of the soffit when forming a deflection head.

Gyproc edge and angle beads
Protecting and enhancing board edges and corners.

Gyproc Joint Tape
A paper tape designed for reinforcement of flat joints or internal angles.

Finishing products (▶ Refer to section C10. S06. P02 for details)

Thistle MultiFinish
To provide a plaster skim finish on most common backgrounds including undercoat plasters and plasterboard.

Thistle SprayFinish
To provide a plaster skim finish by spray or hand application, ideal for medium to large projects.

Thistle BoardFinish
To provide a plaster skim finish to Gyproc plasterboards.

Thistle Magnetic Plaster
To provide a plaster skim finish that provides an attraction to magnets used to finish a wide range of backgrounds, including undercoat plasters and plasterboard.

Thistle PureFinish
To provide a plaster skim finish with ACTIV*air* technology. Used to finish most common backgrounds including undercoat plasters and plasterboard. For more information refer to C02. S01. P49.

Thistle DuraFinish
To provide a plaster skim finish and provide up to 60% tougher resistance to accidental damage.

Thistle ProTape FT50 and FT100
Self-adhesive glass fibre mesh tapes for joint reinforcement.

Insulation products (▶ Refer to section C10. S09. P08 for details)

Isover Steel Frame Infill Batts
Glass mineral wool for enhanced acoustic and thermal performance.

Decorative products (▶ Refer to section C10. S07. P02 for details)

Gyproc Styletrims
Primed, pre-formed aluminium trims for design effects with plasterboard.

GypLyner IWL installation overview

Scan the image with this frame for more information and videos related to this system
▶ Or visit **gyp.sm/b/lc**

This is intended to be a basic description of how the system is built.
For detailed installation guidance refer to the **British Gypsum Site Book.**

Gypframe Floor & Ceiling Channels are suitably fixed to the floor and soffit. Gypframe 'C' Studs are suitably fixed to openings and abutments.

Gypframe 'I' Studs are friction-fitted vertically at the required centres within the channel sections to form the framework. Additional framing is installed as required to support heavy fixtures.

The perimeter of each frame is then sealed with Gyproc Sealant.

If specified, Isover insulation is fitted between studs. Electrical and other services are normally installed at the frame erection stage. Horizontal runs are fixed to the background or can be routed through cut-outs in the studs.
Gypframe 99 FC 50 Fixing Channel can be installed between studs to support recessed switch boxes / socket outlets.

Boards are screw-fixed to framing members to form the lining. Horizontal board joints should be backed with Gypframe GFS1 Fixing Strap or Gypframe GFT1 Fixing 'T'.

Additional information

For full installation details, refer to the **British Gypsum Site Book**, available to download from british-gypsum.com