GypLyner

Concealed grid ceiling lining system

SpecSure®
GYPROC SYSTEMS GUARANTEE

GypLyner

GypLyner is a versatile ceiling lining system suitable for a wide range of installations, ranging from residential properties to large commercial developments. Simple to install, and compatible with the full range of Gyproc boards, **GypLyner** can be used to significantly improve performance levels in a refurbishment project and can also be used for new build installations.

30 – 90 mins

0.35 – 0.85 α_w

52 – 63 R_w dB

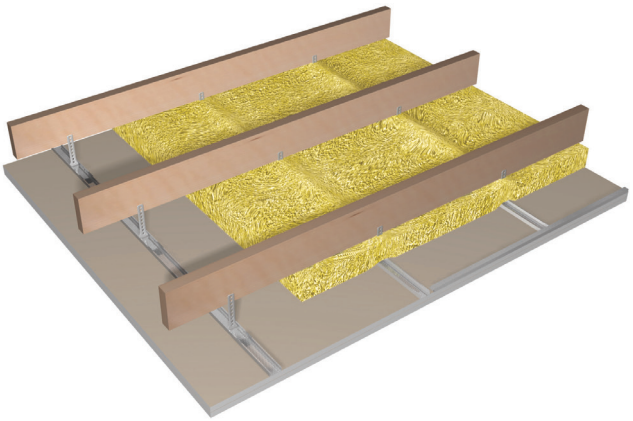
66 – 55 L_{nw} dB

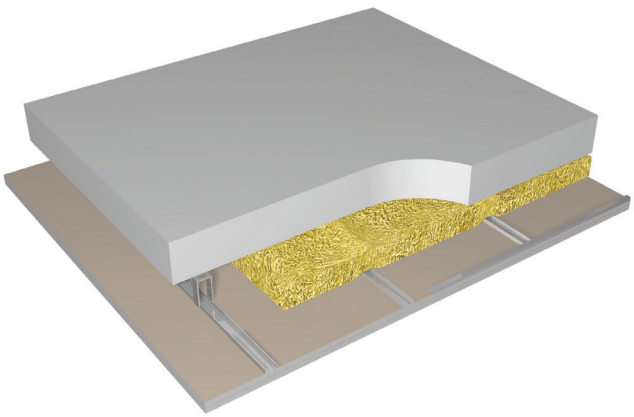
SpecSure®

Refer to C01. S01. P08

Key benefits

- A versatile system that is suitable for concrete soffits or timber joists, and utilises the same components for either wall or ceiling installations
- Can also be installed onto a plasterboard ceiling, making it ideal for refurbishment projects where it is desirable or necessary to retain the existing ceiling
- Ideal for meeting the diverse range of performance requirements of modern construction - compatible with the full range of Gyproc boards, including, Glasroc, Gyptone and Rigitone ranges
- Minimal loss of room height with as little as 25mm cavity required
- Fire and acoustic performance upgrades can be achieved with access to the underside of the floor only





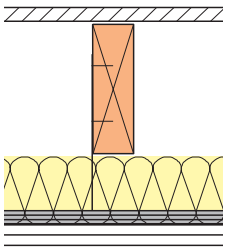
GypLyner performance

Fixing to new or existing solid timber joist floors
Upgrade to an existing floor requires access from below only

For details of when to specify fire resistance using EN
▶ Refer to **C02. S01. P18**

Table 1 – Solutions to satisfy the requirements of *BS EN 1365-2: 2000*

(1)



21mm t&g flooring over 38mm x 195mm (minimum) timber joists at 600mm (maximum) centres. **GypLyner** ceiling fixed to underside of joists with Gypframe GL1 Lining Channels at 450mm maximum centres. 100mm Isover Spacesaver Ready-Cut in the cavity. Ceiling linings as in table. 100% loadbearing ratio.

Detail	Board type	Lining thickness mm	Sound insulation		System reference
			Airborne R_w dB	Impact L_{nw} dB	
60 minutes fire resistance EN					
(1)	Gyproc SoundBloc	2 x 15	54	65	C106020
(1)	Gyproc Plank + Gyproc FireLine	1 x 19 + 1 x 12.5	54	65	C106021

▶ For further assistance in choosing the right solution for your project, try our 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 gyproc.ie

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 Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB If preferred, the existing ceiling may be retained. The new **GypLyner** ceiling is installed with Gypframe GL6 Timber Connectors or Gypframe GL2, GL9 or GL12 Brackets, fixed through the existing ceiling into the joists.

NB The maximum substantiated span on the above solid timber joist systems is 4000mm. For any spans greater than this please contact our Technical Department.

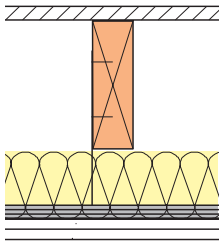
GypLyner performance (continued)

Upgrading existing solid timber joist floors - ceiling replaced
Upgrade to an existing floor requires access from below only

For details of when to specify fire resistance using BS
▶ Refer to **C02. S01. P18**

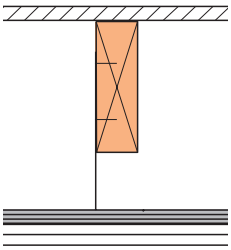
Table 2 – Solutions to satisfy the requirements of *BS 476: Part 21: 1987*

1



Existing floor retained minimum 18mm t&g. Existing wood lath and plaster ceiling removed. **GypLyner** ceiling suspended with Gypframe GL1 Lining Channels at 450mm maximum centres. 100mm Isover Spacesaver Ready-Cut in the cavity. Ceiling linings as in table. 100% loadbearing ratio.

2



Existing floor retained minimum 22mm t&g. **GypLyner** ceiling suspended with Gypframe GL1 Lining Channels at 450mm maximum centres. Ceiling linings as in table. 100% loadbearing ratio.

Detail	Board type	Lining thickness mm	Joist centres mm	Joist size mm	Sound insulation		System reference
					Airborne R_w dB	Impact L_{nw} dB	
30 minutes fire resistance BS							
1	Gyproc SoundBloc	2 x 12.5	450	200 x 50	54	65	C154004
60 minutes fire resistance BS							
1	Gyproc Plank + Gyproc WallBoard	1 x 19 + 1 x 12.5	600	195 x 45	52	66	C206004
1	Gyproc FireLine	2 x 12.5	450	195 x 45	53	66	C154007
2	Glasroc F MULTIBOARD	1 x 12.5	600	195 x 45	-	-	G106030
90 minutes fire resistance BS							
2	Glasroc F MULTIBOARD	2 x 12.5	600	200 x 50	-	-	G106033

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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 Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB For non t&g floors, overlay with 6mm plywood and ensure all joints are staggered.

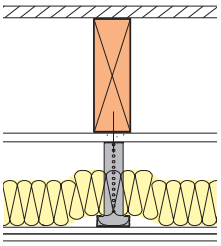
GypLyner performance (continued)

Upgrading existing solid timber joist floors - ceiling retained
Upgrade to an existing floor requires access from below only

For details of when to specify fire resistance using BS
▶ Refer to **C02. S01. P18**

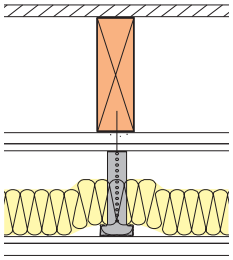
Table 3 – Solutions to satisfy the requirements of *BS 476: Part 21: 1987*

(1)



18mm t&g flooring grade chipboard and existing ceiling of 9.5mm Gyproc WallBoard. **GypLyner** ceiling[1] suspended with Gypframe GL1 Lining Channels at 450mm maximum centres to give a minimum cavity of 50mm to a maximum of 145mm. 50mm Isover Acoustic Roll in the cavity. Ceiling linings as in table.100% loadbearing ratio.

(2)



18mm t&g flooring grade chipboard and ceiling of Gyproc Plank and 12.5mm Gyproc WallBoard to simulate a wood lath and plaster ceiling[2]. **GypLyner** ceiling[1] suspended with Gypframe GL1 Lining Channels at 450mm maximum centres to give a minimum cavity of 50mm to a maximum of 145mm. 50mm Isover Acoustic Roll in the cavity. Ceiling linings as in table. 100% loadbearing ratio.

Detail	Board type	Lining thickness mm	Joist centres mm	Joist size mm	Sound insulation		System reference
					Airborne R_w dB	Impact L_{nw} dB	
30 minutes fire resistance BS							
(2)	Gyproc FireLine	1 x 12.5	450	195 x 45	53	64	C154003
60 minutes fire resistance BS							
(1)	Gyproc FireLine	2 x 12.5	450	195 x 45	56	62	C154005
(2)	Gyproc FireLine	2 x 12.5	450	195 x 45	59	59	C154006

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[1] Gypframe GL6 Timber Connectors are bent at a position between the third and fourth holes along (forming a 30mm horizontal leg) to form a right angle, and fixed through the existing ceiling with suitable fixings. Alternatively, use Gypframe GL2, GL9 or GL12 Brackets.
[2] Existing lath and plaster ceiling (up to 20mm thick) should be supported by chicken wire, securely fixed to the joists.

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 Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB For non t&g floors, overlay with 6mm plywood and ensure all joints are staggered.

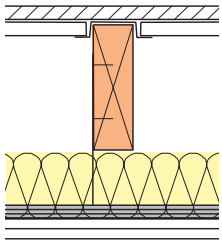
GypLyner performance (continued)

Upgrading existing solid timber joist floors
Upgrade to an existing floor

For details of when to specify fire resistance using BS
▶ Refer to **C02. S01. P18**

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

(1)



GypFloor SILENT comprising minimum 21mm t&g softwood floor boarding with Gyproc Plank on Gypframe SIF Floor Channels. **GypLyner** ceiling suspended with Gypframe GL1 Lining Channels at 450mm maximum centres. 100mm Isover Spacesaver Ready-Cut in the cavity. Ceiling linings as in table. 100% loadbearing ratio.

Detail	Board type	Lining thickness mm	Joist centres mm	Joist size mm	Sound insulation		System reference
					Airborne R_w (R_w + C_{tr}) dB	Impact L_{nw} dB	
60 minutes fire resistance BS							
(1)	Gyproc Plank + Gyproc SoundBloc	1 x 19 + 1 x 12.5	450	200 x 50	63 (50)	55	C154008

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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 Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB For non t&g floors, overlay with 6mm plywood and ensure all joints are staggered.

GypLyner design

Building design

GypLyner comprises Gypframe CL1 Channels suspended by Gypframe brackets (for flat soffits) or Gypframe Timber Connectors (for timber joists). The ceilings boards are screw fixed to the underside of the Gypframe GL1 Channels.

Planning – key factors

The depth of the ceiling cavity is determined by the positioning of the fixing brackets. For concrete soffits the fixing brackets allow sufficient adjustment for levelling the ceiling. When using Gypframe GL2 Brackets, allow for a stand-off of 25mm - 75mm plus the lining thickness. When using Gypframe GL9 Brackets, allow for a stand-off of 25mm - 125mm plus the lining thickness. When using Gypframe GL12 Brackets, allow for a stand-off of 25mm - 175mm plus the lining thickness. When fixing to timber joists using Gypframe GL5 or GL6 Timber Connectors, allow for a maximum cavity depth of 35mm and 120mm respectively, measured from the bottom of the joists to the underside of the lining.

Handy hint

A maximum stand-off of 175mm can be accommodated by the **GypLyner** system. For increased plenum depths.

▶ Refer to C06. S02. P355 – **CasoLine** MF.

Cavity fire barriers

Where cavity fire barriers are required, these can be formed using Gyproc FireLine or Glasroc F MULTIBOARD screw-fixed to a simple frame. The framing should be fixed to the structure to avoid undue loading of the ceiling suspension grid or, alternatively, additional fixing brackets should be incorporated to support the ceiling alongside the cavity fire barrier.

▶ Refer to C06. S06. P422 – Cavity fire barriers.

Relative humidity

GypLyner ceilings lined with Gyproc, Gyptone, Rigitone or Gyproc Specialist Boards are suitable for use under normal occupancy conditions. Buildings in which they are used should be dry, glazed and enclosed, with environmental conditions of no greater than 70% RH at 10°C to 20°C. For high humidity / high moisture conditions use Gyproc plasterboard MR variants or Glasroc F MULTIBOARD.

▶ Refer to C02. S01. P39 – Robustness.

Vapour control

Isover Vario membranes may be used to provide vapour control to ceilings.

Acoustic performance

Gyptone and Rigitone boards are perforated and designed to provide sound absorption when used in conjunction with an airspace behind the ceiling. Increased levels of sound absorption can be achieved by including insulation over the back of the ceiling. Where sound insulation room-to-room is required, sound attenuation $D_{n,c,w}$ of 39dB can be achieved by the inclusion of 100mm Isover Spacesaver Ready-Cut over the back of the ceiling. Alternatively, other design considerations should be adopted such as extending adjoining partitions into the plenum void or installing a plenum barrier.

▶ Refer to C06. S01. P349 – Floors and ceilings introduction, table 1 and 2.

Thermal performance

Isover insulation can be laid over the suspension grid to provide the required standard of thermal insulation. Contact the Gyproc Technical Department for further guidance.

Control joints

Gyproc Control Joints may be required in the ceiling to relieve stresses induced by expansion and contraction of the structure. It is recommended that they coincide with movement joints within the surrounding structure.

Fixing to the structure

Gypframe GL8 Track is suitably fixed to the perimeter at 600mm centres. Gypframe GL11 GypLyner Anchors are suitable for fixing brackets to solid concrete soffits. Refer to table below for fixing centres:

Services

Table 5 – Maximum component centres (mm)

Lining	GypLyner GL1	GypLyner GL2 or GL9 or GL12	GypLyner GL5 or GL6
12.5mm	450	1200	600
15mm	600	1200	600
2 x 12.5mm	450	1200	600
2 x 15mm	600	1200	600
Rigitone board	330	1200	600
Gyptone board	600	1200	600

GypLyner design (continued)

The cavity above the metal framework facilitates the incorporation of services. Pipes and conduits should be fixed in position before installing the framing. Where light fittings, access panels and similar components are incorporated as part of the design requirements, consideration must be given to maintaining the integrity of the ceiling to meet fire resistance and sound insulation requirements. Cables, pipework and conduits, should be independently supported from the building structure.

Fixtures

Fixtures with a maximum weight of 3kg, e.g. single lights, can be fixed into the channels. For other fixtures, independent suspension should be provided from the structure.

Board finishing

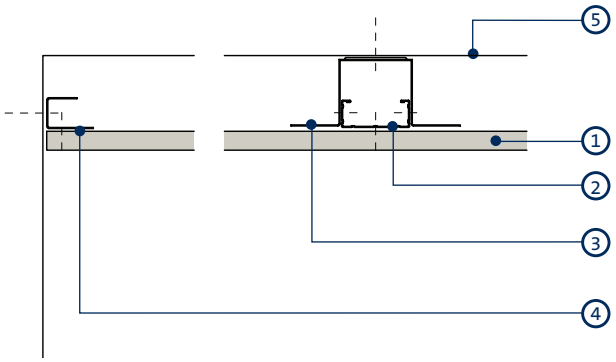
▶ Refer to C08. S01. P483 – Finishes.

Additional care and attention should be exercised when jointing Rigitone and Gyptone boards so as not to fill the perforations and impair the acoustic performance of the finished ceiling.

▶ Refer to Gyproc Installation Guide.

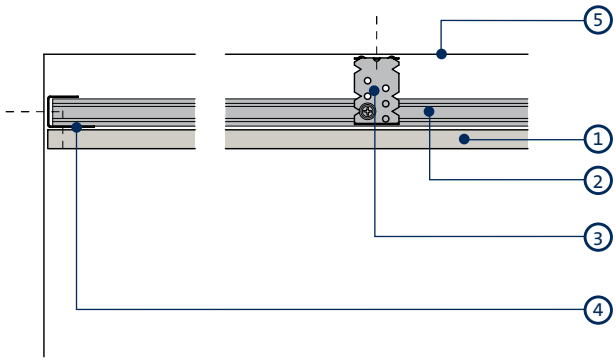
GypLyner construction details

1



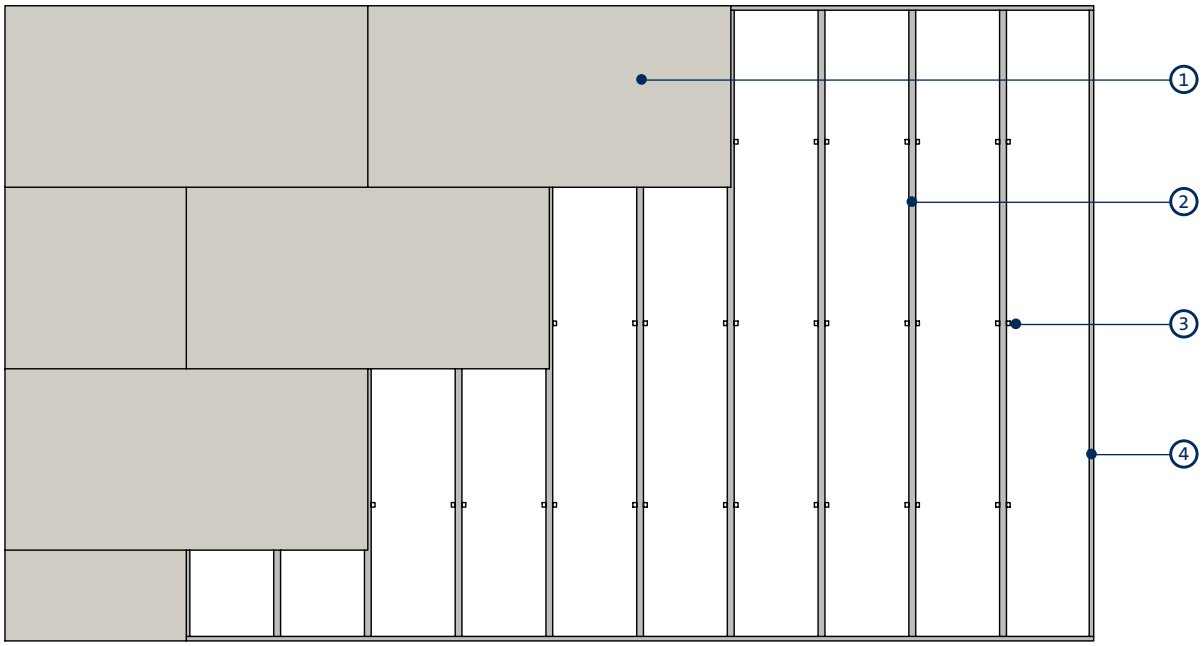
Perimeter parallel to Gypframe GL1 Lining Channel for flat soffit

2



Perimeter perpendicular to Gypframe GL1 Lining Channel for flat soffit

3

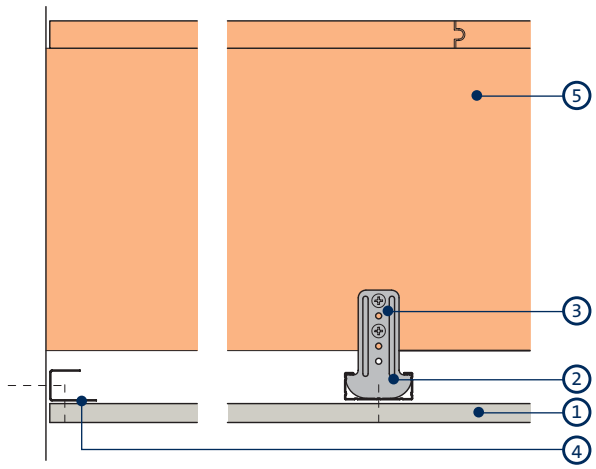


Reflected ceiling plan for flat soffit - single layer 15mm Gyproc plasterboard with channels at 600mm maximum centres, 12.5mm Gyproc plasterboard with channels at 450mm maximum centres, Gyptone board with channels at 600mm maximum centres or Rigitone board at 330mm maximum centres

1 Gyproc, Gyptone or Rigitone boards
2 Gypframe GL1 Lining Channel
3 Gypframe GL2, GL9 or GL12 Bracket
4 Gypframe GL8 Track
5 Flat soffit

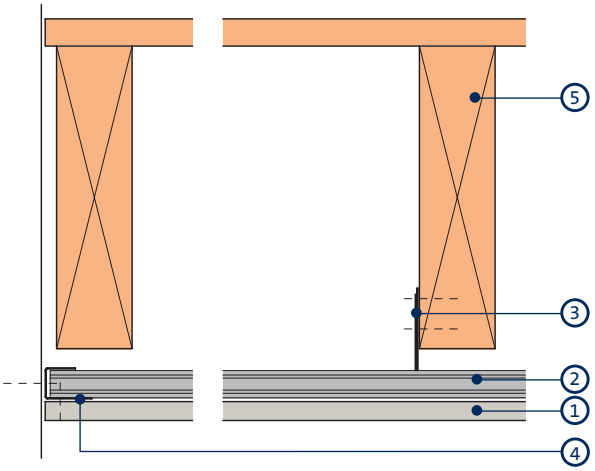
GypLyner construction details (continued)

4



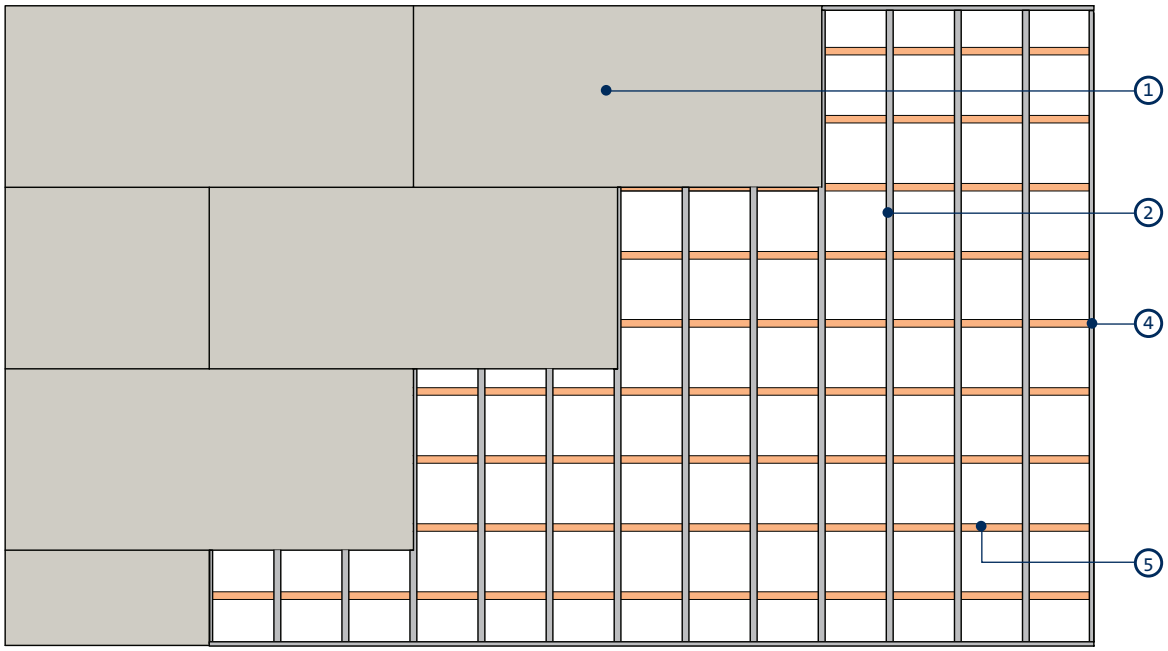
Perimeter parallel to
Gypframe GL1 Lining Channel for timber joist floor

5



Perimeter perpendicular to
Gypframe GL1 Lining Channel for timber joist floor

6



Reflected ceiling plan for timber joist floor - single layer 15mm Gyproc plasterboard with channels at 600mm maximum centres, 12.5mm Gyproc plasterboard with channels at 450mm maximum centres, Gyptone board with channels at 600mm maximum centres or Rigitone board at 330mm maximum centres

1 Gyproc, Gyptone or Rigitone boards
2 Gypframe GL1 Lining Channel
3 Gypframe GL5 or GL6 Timber Connector
4 Gypframe GL8 Track
5 Timber joist floor

NB Gypframe GL5 or Gypframe GL6 Timber Connectors not shown on construction detail 6.

GypLyner system components

Gypframe metal components

Gypframe GL8 Track
Ceiling track for retaining the Gypframe GL1 Lining Channel at wall abutments.

Gypframe GL1 Lining Channel
Main support channel to receive fixing of board.

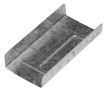
Gypframe GL2 Bracket
For connecting the Gypframe GL1 Lining Channel to the soffit with a maximum 75mm stand-off.

Gypframe GL9 Bracket
For connecting the Gypframe GL1 Lining Channel to the soffit with a maximum 125mm stand-off.

Gypframe GL12 Bracket
For connecting the Gypframe GL1 Lining Channel to the soffit with a maximum 175mm stand-off.

Gypframe GL5 Timber Connector
For connecting the Gypframe GL1 Lining Channel to timber joists with a maximum 35mm drop.

Gypframe GL6 Timber Connector
For connecting the Gypframe GL1 Lining Channel to timber joists with a maximum 120mm drop.



Gypframe GL3 Channel Connector
For joining two sections of Gypframe GL1 Lining Channel.

Gypframe GL11 GypLyner Anchors
For fixing Gypframe GL2, GL9 and GL12 Brackets to concrete soffits.

Board products

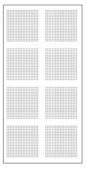
Gyproc WallBoard
Standard gypsum plasterboard.

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

Glasroc F ***MULTIBOARD***
Non-combustible glass-reinforced gypsum board.

Gyproc SoundBloc[2]
Gypsum plasterboard with a high density core for enhanced sound insulation performance.

Gyproc Plank
Standard gypsum plasterboard located as an inner layer.



Ceiling boards
A full range of Gyptone[1] and Rigitone[1] boards are available to meet specific aesthetic and/or acoustic requirements.

[1] Activ'Air® technology as standard.
[2] Also available in Moisture Resistant (MR) version. MR boards are specified in intermittent wet use areas.

Fixing products

Gyproc Drywall Screws
Corrosion resistant self-tapping steel screws for fixing board-to-timber and board-to-metal framing less than 0.8mm thick.

Gyproc Collated Drywall Screws
Corrosion resistant self-tapping steel screws for fixing board-to-timber and board-to-metal framing less than 0.8mm thick.

Gyproc Wafer Head Drywall Screws
Corrosion resistant self-tapping steel screws for fixing metal to metal framing less than 0.8mm thick.

GypLyner system components (continued)

Plasterboard accessories

Gyproc Jointing Materials
Jointing compounds, ready mixes and adhesives for reinforcement and finishing of board joints.

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

Gyproc Drywall Primer
Used to prepare for painting.
Tub contents 10 litre.

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

Plaster products

Gyproc Skimcoat
To provide a plaster skim finish on most common backgrounds including undercoat plasters and plasterboard. Can provide enhanced acoustic performance.

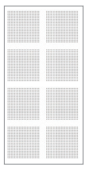
Gyproc Carlite Finish
To provide a plaster skim finish on most common backgrounds including undercoat plasters and plasterboard. Can provide enhanced acoustic performance.

Gyproc Carlite Ultra Finish
Offers all the benefits of Gyproc Skimcoat and Gyproc Carlite Finish with a reduced set time of 90-120mins, making it ideal for smaller jobs.

Plaster accessories
Designed for the reinforcement and finishing of board joints before plaster skimming.

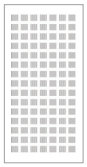
Gyproc Bonding Coat
A lightweight undercoat plaster for use over smooth or medium suction backgrounds. Applied at a depth of 10mm on walls or 8mm on ceilings. Bonding Coat Short Set also available with a reduced set time of 90-120 mins making it ideal for smaller jobs.

Ceiling products

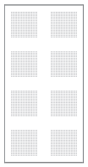


Gyptone BIG *QUATTRO 41*[1]
Acoustic board with square perforations capable of providing Class C sound absorption.

Gyptone BIG *QUATTRO 47*[1]
Acoustic board with occasional square perforations and Class D absorption.



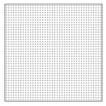
Gyptone BIG *LINE 6*[1]
Gyptone board with a linear perforated pattern capable of providing Class D sound absorption.



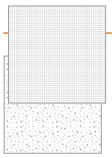
Gyptone BIG *QUATTRO 46*[1]
Acoustic board with intermittent square perforations capable of providing Class D absorption.

Rigitone *12-20/66*[1]
Acoustic board with a perforated pattern of 12mm and 20mm circles capable of providing Class C sound absorption.

Rigitone *10/23*[1]
Acoustic board with a perforated pattern of 10mm circles capable of providing Class C sound absorption.



Rigitone *15/30*[1]
Acoustic board with a perforated pattern of 15mm circles capable of providing Class C sound absorption.



Rigitone *8-15-20 SUPER*[1]
Acoustic board with a random pattern of 8mm, 15mm and 20mm circles capable of providing Class D sound absorption.

[1] Activ'Air® technology as standard.

GypLyner system components (continued)

Ceiling products (continued)

Rigitone *8/18*[1]
Acoustic board with a perforated pattern of 8mm circles capable of providing Class C sound absorption.

Rigitone Spacing Tool
Spacer tool used to ensure accurate installation of Rigitone boards.

Rigitone Vario 60 Jointing Material
High-strength jointing material used for jointing of Rigitone boards.

Rigitone Large Jointing Kit
Jointing kit for application of Vario 60 into Rigitone boards.

Insulation products

Isover Spacesaver Ready-Cut
Glass mineral wool for enhanced acoustic and thermal performance.

Isover Acoustic Roll
Glass mineral wool for enhanced thermal performance.

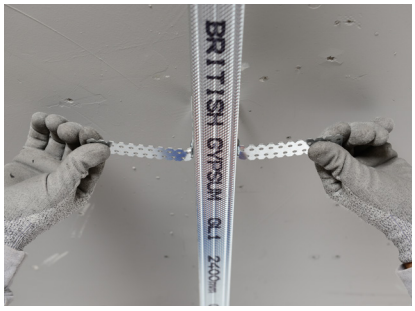
GypLyner installation overview

This is intended to be a basic description of how the system is built.
For detailed installation guidance refer to the **Gyproc Installation Guide.**

Gypframe GL8 Track is fixed at the perimeter of the room with the longer leg at the bottom.

Gypframe GL2, GL9 or GL12 Brackets are fixed to the sofit at the required centres.

Gypframe GL1 Lining Channels are located into the perimeter track and each leg of the Gypframe GL2, GL9 or GL12 Brackets are screw-fixed to the Gypframe GL1 Lining Channels with Gyproc Wafer Head Drywall Screws.



The protruding legs of each bracket are bent to sit back from the channel face. Gypframe GL1 Lining Channel sections are extended using Gypframe GL3 Channel Connectors.

Additional channel or supplementary framing is installed as required to support fixtures. Boards are fixed to the Gypframe GL1 Lining Channels and Gypframe GL8 Track to form one or two layer linings as specified.

Fixing to timber joists

Gypframe GL5 or GL6 Timber Connectors are fixed to the side of joists using Gyproc Drywall Screws. The connectors must be aligned accurately since they can not be adjusted once Gypframe GL1 Lining Channel is engaged into a row of timber connectors and twisted into position.

Additional information

For full installation details, refer to the **Gyproc Installation Guide**, available to download from gyproc.ie