

GypWall EXTREME

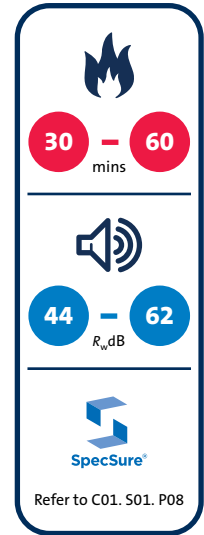
Ultimate impact and abrasion resistant partition system



GypWall EXTREME

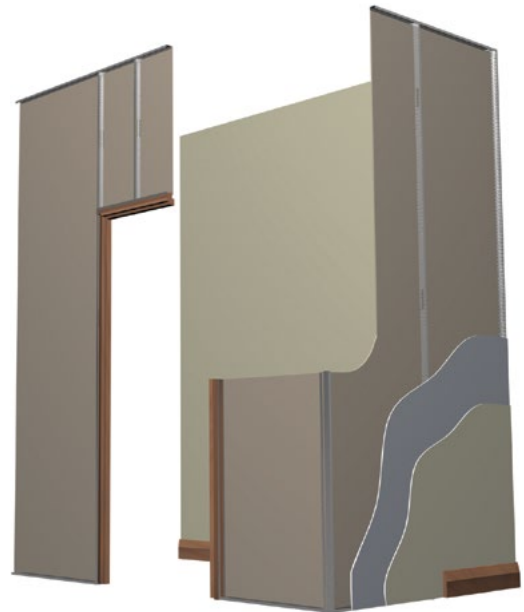
GypWall EXTREME is our ultimate impact resistant partition, incorporating Rigidur reinforced gypsum board with its extremely high levels of impact and abrasion resistance, in combination with high-strength Gypframe components, results in a range of partition systems with durability that will exceed expectations.

The **GypWall EXTREME** family of partitions have been tested to the extreme, comfortably surpassing all requirements of a full Severe Duty Rating in accordance with *BS 5234: Part 2: 1992*.



Key benefits

- Provides performance beyond a Severe Duty Rating from a lightweight, narrow-footprint solution
- Heavy fixtures can be secured to a single layer without the need for additional pattrassing
- Reduced maintenance cycles due to a highly impact and scratch resistant board surface
- Fully compatible with other Gyproc systems, meaning **GypWall EXTREME** can be specified in areas of the building that really need it



GypWall EXTREME performance

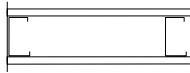
70mm Gypframe 'C' Stud and Gypframe AcouStud

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



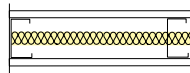
Table 1a — Solutions to satisfy the requirements of BS EN 1364-1: 1999

①



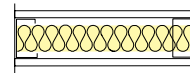
One layer of board each side of Gypframe 70 S 60 'C' Studs at 600mm centres. Linings as in table.

②



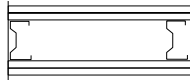
One layer of board each side of Gypframe 70 S 60 'C' Studs at 600mm centres. 25mm Isover Acoustic Roll in the cavity. Linings as in table.

③



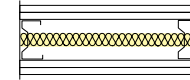
One layer of board each side of Gypframe 70 S 60 'C' Studs at 600mm centres. 50mm Isover Acoustic Roll in the cavity. Linings as in table.

④



Two layers of board each side of Gypframe 70 AS 50 AcouStuds at 600mm centres. Linings as in table.

⑤



Two layers of board each side of Gypframe 70 AS 50 AcouStuds at 600mm centres. 25mm Isover Acoustic Roll in the cavity. Linings as in table.

Detail	Partition thickness mm	Inner board type mm	Outer board type mm	Max. partition height ¹ mm	Sound insulation R_w dB	Duty rating	Approx. weight kg/m ²	System reference
30 minutes fire resistance								
①	97	Rigidur 12.5	-	3800	44	Severe ²	30	X606009
②	97	Rigidur 12.5	-	3800	47	Severe ²	30	X606010
③	97	Rigidur 12.5	-	3800	49	Severe ²	30	X606011
①	102	Rigidur 15	-	4000	45	Severe ²	36	X606001
②	102	Rigidur 15	-	4000	51	Severe ²	36	X606002
③	102	Rigidur 15	-	4000	52	Severe ²	36	X606003
60 minutes fire resistance								
④	122	Gyproc SoundBloc 12.5	Rigidur 12.5	4000	54	Severe ²	52	X606A006
④	127	Gyproc WallBoard 15	Rigidur 12.5	4000	54	Severe ²	52	X606A005
⑤	127	Gyproc SoundBloc 15	Rigidur 12.5	4000	58	Severe ²	56	X606A007

▶ 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

¹ The maximum heights quoted are limited by the fire state field of application or by limiting deflection of L/240 at 200 Pa, whichever is the more onerous.

² The resistance to impact of Rigidur is higher than the most severe criteria set out in BS 5234. Gyproc has conducted a number of additional structural performance and durability tests beyond Severe Duty to better reflect actual use in high traffic areas. Search for substantiation report on gyproc.ie and type in the reference number.

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 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel should be used at base and at head (subject to deflection criteria).

GypWall EXTREME performance (continued)

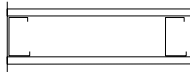
70mm Gypframe 'C' Stud and Gypframe AcouStud

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



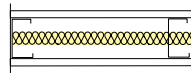
Table 1b — Solutions to satisfy requirements of BS 476: Part 22: 1987

①



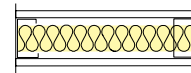
One layer of board each side of Gypframe 70 S 60 'C' Studs at 600mm centres. Linings as in table.

②



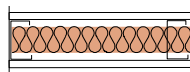
One layer of board each side of Gypframe 70 S 60 'C' Studs at 600mm centres. 25mm Isover Acoustic Roll in the cavity. Linings as in table.

③



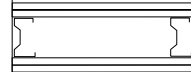
One layer of board each side of Gypframe 70 S 60 'C' Studs at 600mm centres. 50mm Isover Acoustic Roll in the cavity. Linings as in table.

④



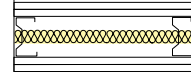
One layer of board each side of Gypframe 70 S 60 'C' Studs at 600mm centres. 60mm Isover ULTIMATE™ Piano Plus in the cavity. Linings as in table.

⑤



Two layers of board each side of Gypframe 70 AS 50 AcouStuds at 600mm centres. Linings as in table.

⑥



Two layers of board each side of Gypframe 70 AS 50 AcouStuds at 600mm centres. 25mm Isover Acoustic Roll in the cavity. Linings as in table.

Detail	Partition thickness mm	Inner board type mm	Outer board type mm	Max. partition height ¹ mm	Sound insulation R_w dB	Duty rating	Approx. weight kg/m ²	System reference
30 minutes fire resistance								
①	97	Rigidur 12.5	-	3800	44	Severe ²	30	X606009
②	97	Rigidur 12.5	-	3800	47	Severe ²	30	X606010
③	97	Rigidur 12.5	-	3800	49	Severe ²	30	X606011
①	102	Rigidur 15	-	4000	45	Severe ²	36	X606001
②	102	Rigidur 15	-	4000	51	Severe ²	36	X606002
③	102	Rigidur 15	-	4000	52	Severe ²	36	X606003
60 minutes fire resistance								
④	97	Rigidur 12.5	-	3800	49	Severe ²	30	X606012
④	102	Rigidur 15	-	4000	51	Severe ²	36	X606004
⑤	122	Gyproc SoundBloc 12.5	Rigidur 12.5	4700	54	Severe ²	52	X606A006
⑤	127	Gyproc WallBoard 15	Rigidur 12.5	4700	54	Severe ²	52	X606A005
⑥	127	Gyproc SoundBloc 15	Rigidur 12.5	4700	58	Severe ²	56	X606A007

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

² The resistance to impact of Rigidur is higher than the most severe criteria set out in BS 5234. Gyproc has conducted a number of additional structural performance and durability tests beyond Severe Duty to better reflect actual use in high traffic areas. Search for substantiation report on gyproc.ie and type in the reference number.

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 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel should be used at base and at head (subject to deflection criteria).

GypWall EXTREME performance (continued)

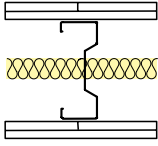
146mm Gypframe AcouStud

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



Table 2a — Solutions to satisfy the requirements of BS EN 1364-1: 1999

①



Two layers of board each side of Gypframe 146 AS 50 AcouStuds at 600mm centres. 25mm Isover Acoustic Roll in the cavity. Linings as in table.

Detail	Partition thickness mm	Inner board type mm	Outer board type mm	Max. partition height ¹ mm	Sound insulation $R_w (R_w + C_v)$ dB	Duty rating	Approx. weight kg/m ²	System reference
60 minutes fire resistance (EN)								
①	203	Gyproc SoundBloc 15	Rigidur 12.5	4000	60 (57)	Severe ²	56	X606A013

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²The resistance to impact of Rigidur is higher than the most severe criteria set out in BS 5234. Gyproc has conducted a number of additional structural performance and durability tests beyond Severe Duty to better reflect actual use in high traffic areas. Search for substantiation report on gyproc.ie and type in the reference number.

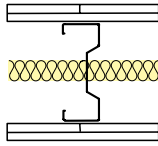
(NB) The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, or skimmed according to Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

(NB) Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel should be used at base and at head (subject to deflection criteria).



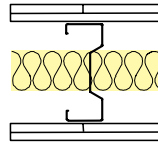
Table 2b — Solutions to satisfy requirements of BS 476: Part 22: 1987

①



Two layers of board each side of Gypframe 146 AS 50 AcouStuds at 600mm centres. 25mm Isover Acoustic Roll in the cavity. Linings as in table.

②



Two layers of board each side of Gypframe 146 AS 50 AcouStuds at 600mm centres. 50mm Isover Acoustic Roll in the cavity. Linings as in table.

Detail	Partition thickness mm	Inner board type mm	Outer board type mm	Max. partition height ¹ mm	Sound insulation $R_w (R_w + C_{tr})$ dB	Duty rating	Approx. weight kg/m ²	System reference
60 minutes fire resistance								
①	203	Gyproc SoundBloc 15	Rigidur 12.5	7800	60 (57)	Severe ²	56	X606A013
②	203	Gyproc SoundBloc 15	Rigidur 12.5	7800	62 (59)	Severe ²	56	X606A014

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NB Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel should be used at base and at head (subject to deflection criteria).

Building design

Whilst our GypWall partition systems are non-loadbearing, they are able to provide resistance to levels of horizontal uniformly distributed loads.

► Refer to C02. S01. P37 – Robustness.

Planning – key factors

GypWall EXTREME comprises Gypframe 'C' Studs installed at 600mm centres within Gypframe Deep Flange Floor & Ceiling Channels. The position of services and heavy fixtures should be pre-determined and their installation planned into the frame erection stage.

Fixing floor and ceiling channels

Gypframe Deep Flange Floor & Ceiling Channels must be securely fixed with a row of fixings at 600mm maximum centres. For 94mm channels and above, 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.

Splicing

To extend studs, overlap by 600mm (minimum). Fix together using Gyproc Wafer Head Drywall Screws or steel pop rivets (two to each flange).

► Refer to Partitions introduction C04. S01. P110 – construction detail 1.

Partition to structural steelwork junctions

When designing the layout of rooms requiring separation by sound insulating walls abutting structural steelwork, consideration should be given to the potential loss of sound insulation performance through the steelwork.

► Refer to C02. S01. P21 – Building acoustics.

Door openings

The designer should consider the thickness tolerances of the partition types in relation to the proposed door frame detail. To satisfy BS 5234 requirements for Heavy and Severe Duty partitions, door framing should be specified as shown in Partitions introduction C04. S01. P119 – construction details 26. The door manufacturer should also be consulted in relation to the door detail.

If a plastered finish is specified, the thickness of the door or glazing frame must allow for the thickness of the plaster finish.

Cavity fire barriers

Minimum 12.5mm Gyproc plasterboard screw-fixed into the web of perimeter channels or vertical studs will provide a satisfactory closure to flame or smoke.

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

Control joints

Control joints may be required in the partition to relieve stresses induced by expansion and contraction of the structure. They should coincide with movement joints within the surrounding structure.

► Refer to Partitions introduction C04. S01. P115 – construction detail 12.

Deflection heads

Partition head deflection designs may be necessary to accommodate deflections in the supporting floor. Deflection heads may also be required to the underside of roof structures subjected to positive and negative pressures.

To minimise the loss of acoustic performance:

► Refer to C02. S01. P21 – Building acoustics.

For deflection head design:

► Refer to Partitions introduction C04. S01. P116 – construction details 15-22.

Services

Penetrations

Penetrations of fire-resistant or sound-insulating constructions for services need careful consideration to ensure that the performance of the element is not downgraded. Consideration also needs to be given to the services themselves so they do not act as the mechanism of fire spread or sound transmission.

► Refer to C02. S01. P41 – Service installations.

Electrical

The installation of electrical services should be carried out in accordance with BS 7671. The cut-outs in the studs can be used for routing electrical and other small services (Partitions introduction C04. S01. P110 – construction detail 2). Switch boxes and socket outlets can be supported from Gypframe 99 FC 50 Fixing Channel fixed horizontally between studs, or a high performance socket box detail used where higher acoustic performance is required.

Where Gypframe AcouStuds are used, services are routed through 50mm x 28mm 'H' shaped push-outs, at the same centres as shown in Partitions introduction C04. S01. P110 – construction detail 2a for conventional cut-outs. Cables should be protected by conduit, or other suitable precautions taken to prevent abrasion when they pass through the metal frame. Service cut-outs should be aligned to allow easy installation of service. If studs require cutting, cut from the same end of each stud to ensure cut-out alignment.

Independent support

When designing for the installation of services such as fire dampers and associated ductwork through a GypWall partition, consideration should be given to the size and weight of the damper - this will determine whether it can be supported directly from the partition or needs to be independently supported from the structure.

► Refer to Partitions introduction C04. S01. P121 – construction details 28-31.

Fixtures

Due to the inherent strength of Rigidur some fixtures can be made directly to the board – please see the **Gyproc Installation Guide** for more information, available to download from gyproc.ie. 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. P41 – Service installations.

Access for maintenance

Gyproc Profilex Access Panels are available to provide access for maintenance. Access panels must be fully compatible with drywall construction and match the fire rating of the partition.

▶ Refer to the Gyproc Technical Department for further information.

Tiling

Tiles can be applied to the surface of lightweight partition systems.

▶ Refer to C08. S04. P498 – Tiling

Construction details

For standard GypWall construction details

▶ Refer to Partitions introduction C04. S01. P110 – construction details

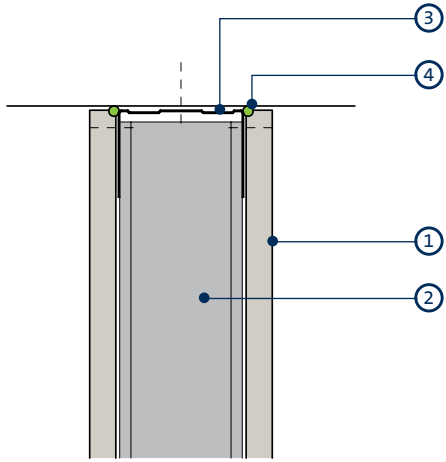


Handy hint

- The use of insulation within the partition cavity to provide a higher acoustic performance than may initially be required, will help to future proof for subsequent changes of room use
- Cut-outs in the Gypframe Studs can be used to accommodate horizontal service runs. Installers should be made aware of this to avoid vertical misalignment of cut-outs between adjacent studs

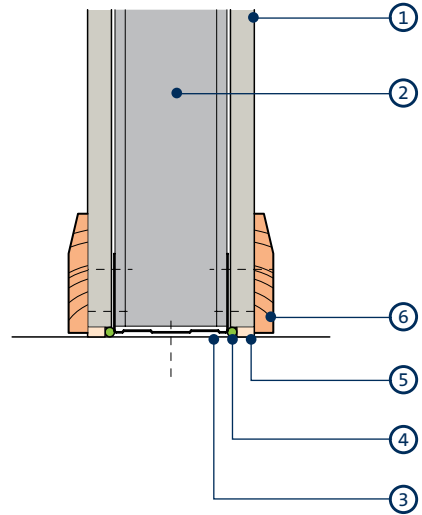
GypWall EXTREME construction details

1



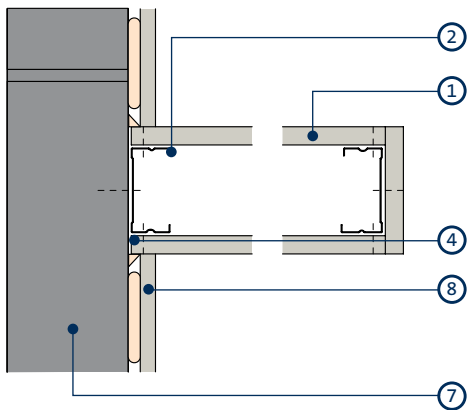
Head

2



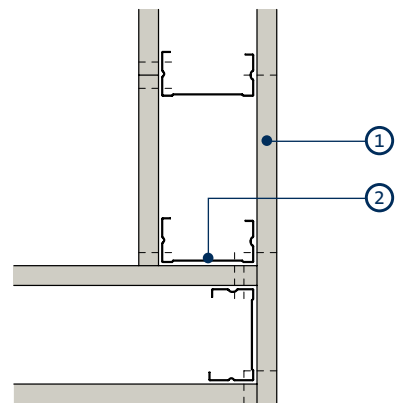
Base

3



Junction with masonry and stop end

4

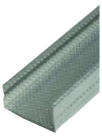


Corner

- 1 Rigidur
- 2 Gypframe 'C' Stud
- 3 Gypframe Deep Flange Floor & Ceiling Channel
- 4 Gyproc Sealant

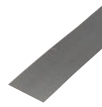
- 5 Bulk fill with Gyproc jointing materials (where gap exceeds 5mm)
- 6 Skirting
- 7 Internal blockwork
- 8 DriLyner wall lining system

Gypframe metal components



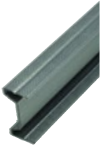
Gypframe 'C' Studs (70 S 60)

Vertical stud providing acoustic and structural performances designed to receive fixing of board to both sides.



Gypframe GFS1 Fixing Strap

Used to support horizontal board joints and within deflections heads.



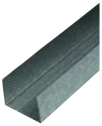
Gypframe AcouStud (70 AS 50, 146 AS 50)

Vertical stud providing enhanced acoustic and structural performances designed to receive fixing of board to both sides.



Gypframe GFT1 Fixing T

Used to support horizontal board joints.



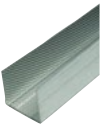
Gypframe Deep Flange Floor & Ceiling Channels (72 DC 60, 148 DC 60)

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).



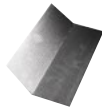
Gypframe GA5 Internal Fixing Angle

Steel angle providing framing stability and board support.



Gypframe Extra Deep Flange Floor & Ceiling Channels (72 EDC 80, 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).



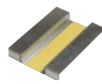
Gypframe GA6 Splayed Angle

Steel angle providing framing stability and board support.



Gypframe 99 FC 50 Fixing Channel

A versatile metal fixing channel used to support medium weight fixtures on walls.



Gypframe Service Support Plate

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

Board products



Rigidur

Gypsum fibre board with additives for rigidity, durability and mechanical strength.



Gyproc WallBoard

Standard gypsum plasterboard, used as inner layer.



Gyproc DuraLine¹

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.



Gyproc SoundBloc¹

Gypsum plasterboard with a high density core for enhanced sound insulation performance.



Gyproc CoreBoard

Gypsum plasterboard with fire and moisture resistant additives. Used to form deflection head.

¹ Also available in a 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.



Rigidur Screws

Corrosion resistant self-tapping steel screws designed for fixing Rigidur board to framing. (Gypframe 'C' Studs and Gypframe AcouStuds 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 Jack-Point Screws

Corrosion resistant self-tapping steel screws for fixing board to metal framing 0.8mm thick and greater ('I' stud 0.6mm thick and greater).



Gyproc 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).



Gyproc Wafer Head Jack-Point Screws

Corrosion resistant self-tapping steel screws for fixing metal to metal framing 0.8mm thick ('I' studs 0.6mm thick and greater).

Plasterboard accessories



Gyproc Jointing Material

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



Gyproc Corner Tape

A paper tape bonded to two corrosion resistant steel strips.



Gyproc Control Joint

To accommodate structural movement of up to 7mm.



Gyproc Paper Joint Tape

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



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 Drywall Primer

Used to prepare for painting. Tub contents 10 litre.



Gyproc Sealant

Used to seal air paths for optimum sound insulation.

Finishing 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

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Gyproc Carlite Ultra Finish

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



Gyproc 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.



Plaster accessories

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

Insulation products



Isover Acoustic Roll

Glass mineral wool for enhanced acoustic and thermal performance.



Isover ULTIMATE™ Piano Plus

Glass mineral wool for enhanced acoustic and fire performance.

GypWall EXTREME installation overview

This is intended to be a basic description of how the system is built.



Gypframe Deep Flange or Extra Deep Flange Floor & Ceiling Channels are suitably fixed to the floor and soffit.



Gypframe Studs are suitably fixed to abutments.



The perimeter of the partition is then sealed on both sides with Cyproc Sealant.



Gypframe studs are then friction fitted into the Gypframe Deep Flange Floor & Ceiling Channels at required centres.



Door openings are constructed to the Heavy and Severe Duty detail.



M&E services can be located within the partition cavity.



Isover acoustic insulation can also be added to the partition cavity for increased acoustic performance.



Gyproc DuraLine, Gyproc SoundBloc or Gyproc WallBoard plasterboards may be installed as an inner layer with Gyproc Drywall Screws.



Rigidur boards are then fixed as the outer layer to all Gypframe framing members with Rigidur Screws.



Additional information

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

