

GypWall CURVE

Curved wall lining system



GypWall CURVE

GypWall curve is a highly cost-effective system designed to provide curved walls and linings. This system can be installed in all types of buildings to deliver design flexibility and aesthetic impact.



Key facts

- Minimum radii 600mm
- Gypframe channel can be easily shaped to radius
- Choice of linings to suit performance requirements and to maintain continuity
- Boards can be jointed in the normal way

Applications

A wide range of applications, for example receptions, communal areas and atria.

Sector

- ✓ Office / commercial
- ✓ Retail
- ✓ Sport and leisure
- ✓ Education
- ✓ Healthcare
- ✓ High-rise multi-occupancy
- ✓ Auditoria

System components

Gypframe metal products



50 S 50 'C' Stud Length 3000mm



92 S 50 'C' Stud Length 3000mm



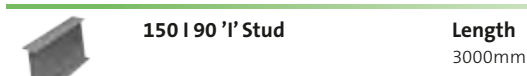
150 S 50 'C' Stud Length 3000mm



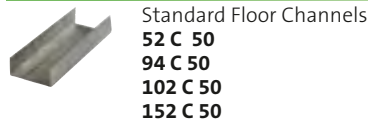
70 I 70 'I' Stud Length 3000mm



100 I 80 'I' Stud Length 3000mm



150 I 90 'I' Stud Length 3000mm



Standard Floor Channels
52 C 50
94 C 50
102 C 50
152 C 50

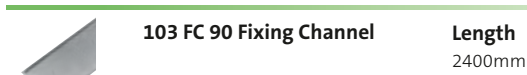
Deep Flange Floor Channels
52 DC 60
102 DC 60
94 DC 60
152 DC 60

Extra Deep Flange Floor & Ceiling Channels
52 EDC 80
94 EDC 80
102 EDC 80
152 EDC 80

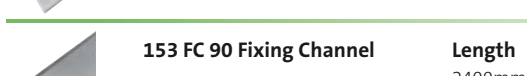
All channels are available in 3000mm



103 FC 50 Fixing Channel Length 2400mm



103 FC 90 Fixing Channel Length 2400mm



153 FC 90 Fixing Channel Length 2400mm



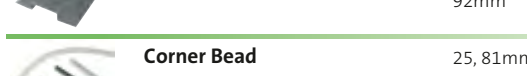
GFS1 Fixing Strap Length 2400mm



GA6 Splayed Angle Length 3000mm



Service Support Plate Length 92mm



Corner Bead 25, 81mm



Edge Bead 9.5, 12.5, 15mm

Board products



Gyproc Regular²
 Thickness 9, 12.5, 12.7, 15, 15.9mm
 Width 1200mm



Gyproc FireStop^{1,2}
 Thickness 12.5, 12.7, 15, 15.9mm
 Width 1200mm



Gyproc DuraLine^{1,2}
 Thickness
 Width



Glasroc F MULTIBOARD
 Thickness
 Width

¹ Moisture resistant (MR) versions of the above boards are specified in intermittent wet use areas, e.g. shower cubicles.

² Available with Activ'Air and M2TECH technology.



Fixing and finishing products



Gyproc Wafer Head Drywall Screws
 For Gyproc metal-to-metal fixing less than 0.8mm thick.

or



Gyproc Wafer Head Jack-Point Screws
 For Gyproc metal-to-metal fixing 0.8mm thick or greater



Gyproc Drywall Screws
 For fixing boards to Gyproc metal framing less than 0.8mm thick.

or



Gyproc Jack-Point Screws
 For fixing boards to Gyproc metal framing 0.8mm thick or greater.



Gyproc Jointing Compound
 For seamless jointing.



Gyproc M2TECH Jointing Compound
 For seamless jointing. Specially developed for high moisture and mold-prone environments.



Gyproc Paper Tape
 For joint reinforcement.



Gyproc Fibre Tape
 For joint reinforcement.



Gyproc M2TECH Fibre Tape
 For joint reinforcement. Comes with an anti-microbial coating.



Eligible for the
SpecSure warranty
 from Gyproc

FUTURE PROOF

System components (continued)

Fixing and finishing products (continued)



Gyproc FireStrip
For fire-stopping deflection heads



GypFine Board Skim Plaster
For skimming plasterboard surfaces to Q4/L5 finish.



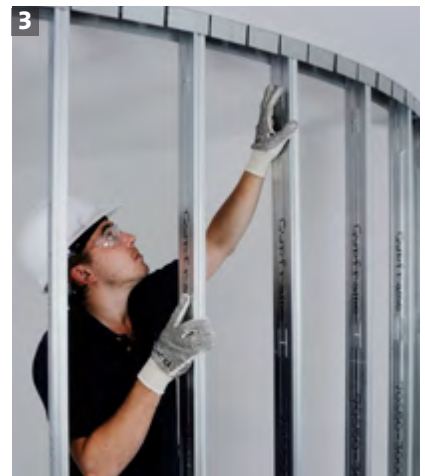
Gyproc Sealant
For sealing air gaps in systems to maintain optimum acoustic performance.

Insulation products



Isover Acoustic Partition Roll
25mm, 50mm and 75mm, for improved acoustic performance.

Installation overview



Gyproframe channel is snipped and bent to the required radius to achieve a smooth and un-faceted line, and suitably fixed to the floor and ceiling using two rows of fixings at 300mm centres. Gyproframe studs are fitted vertically within channel sections, and to abutments, to form the framework. Studs are fixed into the channel at both head and base and must all face the same way. If a deflection head is required, the studs should not be fixed into the head channel and alternative temporary support may be required to stabilise the stud at the head whilst boarding proceeds. Additional framing is installed as required to support heavy fixtures.

For single layer board linings, fix boards horizontally. Stagger board joints and avoid vertical joints occurring on the apex of the curve.

For double layer board linings, inner boards are fixed horizontally to all supports. Face layer boards are fixed horizontally with joints staggered in relation to the first layer. Vertical joints occurring on the apex of the curve in the face layer should be avoided. Additional studs may be required where multiple layers are specified to account for the difference that arises between inner and outer radii.

Services

Electrical and other services are normally installed after one side is boarded.

Performance

Fire resistance

There is no specific standard against which to test curved walls and linings, but ad-hoc testing has been carried out which confirms that a similar performance can be achieved to that claimed for the straight partition.

Impact resistance

Glasroc F MULTIBOARD offers a high degree of impact resistance. It also has excellent mechanical properties, is not brittle and therefore is not prone to cracking or shattering when handled.

Degree of curvature

In common with other sheet materials, board-ends have a tendency to remain straight. The minimum radius, therefore, will be influenced by the board characteristics, the length of curve, the support centres, and the occurrence of board joints.

Sound insulation

Reducing the centres of the metal studs within GypWall CURVE can have a detrimental effect on sound insulation. Include 25mm Isover APR in the cavity for improved acoustic performance.

Refer to – Principles of robust design.

Design

Planning

The positioning of vertical board joints on exposed board layers at the apex of the curve should be avoided. The positioning of all studs, therefore, needs to be determined at the design stage. Where straight runs occur within curved partitions or linings, stud centres can be increased as determined by the specification, once 600mm off the curve.

Fixing floor and ceiling channels

Gypframe channels must be securely fixed in two rows of fixings at 300mm centres. 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.

Cavity fire barriers

Minimum 12.5mm Gyproc plasterboard can be used to form a cavity closure within the partition to prevent the spread of fire or smoke.

Electrical

The installation of electrical services should be carried out in accordance with the relevant controlling authority and / or procedures. The cut-outs in the studs can be used for routing electrical and other small services (see GypWall CLASSIC Construction details – 1). Switch boxes and socket outlets can be supported from stud noggings or Gypframe Fixing Channels fixed horizontally between studs, or a high performance socket box detail where higher acoustic performance is required.

Cables should be protected by conduit, or other suitable precautions taken to prevent abrasion when they pass through the metal frame.

Board finishing

Refer to section 9 – Finishing systems and decorative effects.

Table 1 – Minimum bending radii and stud centres

Board type	Thickness mm	Minimum radius ¹ mm	Stud centres mm ²
Glasroc F MULTIBOARD	6	600	300
	10	2500	300
	12 (2x6)	600	300
	12.5	2700	300
Gyproc Regular	9	1800	300
	12.5	3600	300
	15	4800	300
Gyproc FireStop	12.5	4800	300
	15	5700	400
Gyproc DuraLine	15	5700	400

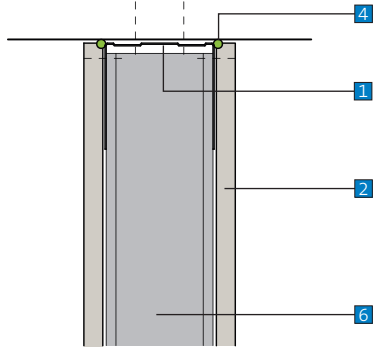
¹ Concave or convex.

² For any radius 7000mm or more, studs can be installed at 600mm centres irrespective of board type with the exception of 6mm Glasroc F MULTIBOARD.

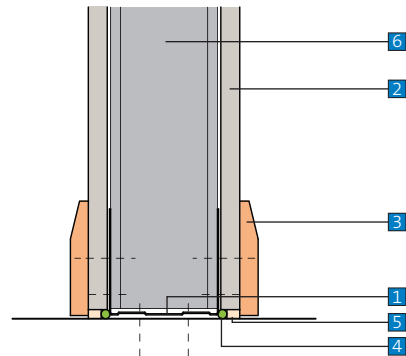
NB Multiple layer specifications can be used if required to meet specific performance criteria.

Construction Details

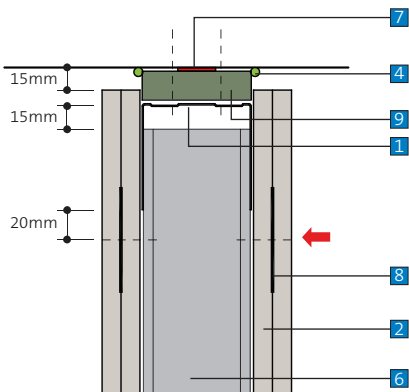
1 Head



Base 2



3 Deflection head for 15mm downward movement and 60 minutes fire resistance



- 1 Gypframe Channel
- 2 Gyproc plasterboard or Glasroc F MULTIBOARD
- 3 Skirting
- 4 Gyproc Sealant
- 5 Bulk fill with Gyproc jointing materials (where gap exceeds 5mm)

- 6 Gypframe 'C' Stud
- 7 Gyproc FireStrip (continuous)
- 8 Gypframe GFS1 Fixing Strap
- 9 Gyproc CoreBoard cut to required curve

NB No board fixings should be made into the head channel. The arrow (←) denotes the uppermost board fixing, which should be made into Gypframe GFS1 Fixing Strap. Continuous Intumescent Firestrip must be installed as shown to maintain fire performance.