

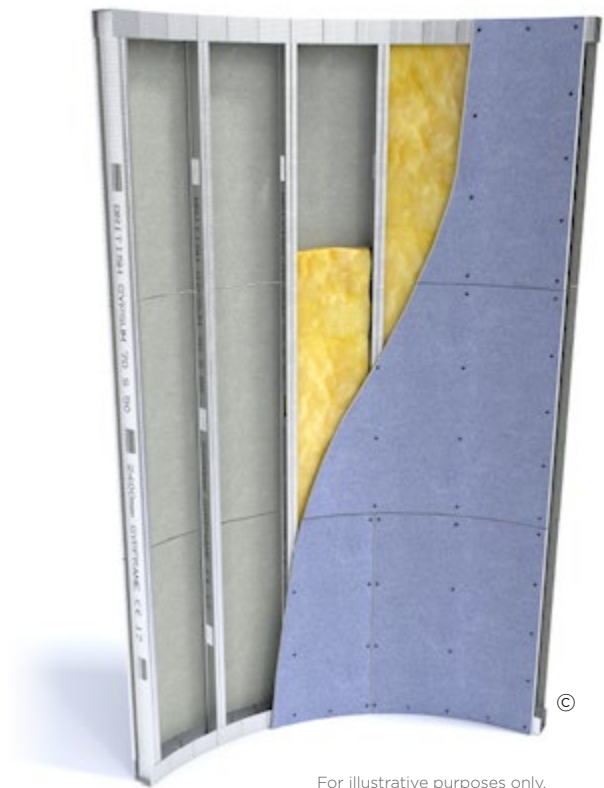
Technical Guidance Notes to common issues

Forming non-fire rated curved partitions

Providing cost-effective, multi-purpose solutions for all types of buildings.

GypWall Single Frame is our most versatile, lightweight non-loadbearing metal stud and drywall partition system. Optimised to cover all applications, from simple space division, through to high performance walls our GypWall Single Frame systems can be tailored to meet the technical performance requirements of both new and existing buildings. Quick to install when compared to masonry or timber frame alternatives, our systems allow building layouts to be transformed with minimal disruption.

Our systems can also be used to form non-fire rated curved walls and linings down to a radius of 600mm.



For illustrative purposes only.

Key benefits

- GypWall Single Frame system gives your building the protection of our **SpecSure®** lifetime warranty.
- Cost-effective and easy-to-install solution compared to other forms of construction due to the innovative Gypframe 72 EDCL 80 CurveLyner Channel and its expandable outer flange.
- Uses standard products, only the Gypframe 72 EDCL 80 CurveLyner Channel is unique, minimising the number of components required on site.
- No need for a curved timber template for laying out.
- Can be installed as a lining to existing structures by using Gypframe 'I' Studs and boarding to one side only.
- A smooth seamless finish is achieved using our Thistle® or ThistlePro® plasters.

Minimum bending radi and stud centres (mm). Horizontal board orientation			
BOARD TYPE	THICKNESS (MM)	MINIMUM RADIUS (MM)*	STUD CENTRES (MM)**
Glasroc F MultiBoard	6	600	300
	10	2500	300
	12 (2x6)	600	300
	12.5	2700	300
Gyproc WallBoard	9.5	1800	300
	12.5	3600	300
	15	4800	300
Gyproc SoundBloc	12.5	2900	300
	15	3600	300
Gyproc DuraLine	15	5700	400
Glasroc H TileBacker	6	600	300

* Concave or convex

** For any radius 7000mm or more, studs can be installed at 600mm centres irrespective of board type with the exception of Glasroc F MultiBoard 6mm. Boards may be orientated vertically for any radius 7000mm or more.

Recommended maximum heights (mm) using Glasroc F MultiBoard				
STUD TYPE	1X6MM EACH SIDE	2X6MM EACH SIDE	1X10MM EACH SIDE	2X10MM EACH SIDE
Single 70 S 50	3400	3600	3500	4200
Boxed 70 S 50	3700	3900	3800	4500
Single 70 S 60	3600	3700	3700	4400
Single 70 AS 50	3700	3800	3800	4400
Boxed 70 S 60	3900	4100	4000	4600
Boxed 70 AS 50	4000	4100	4100	4700
Single 70 50	3900	4100	4000	4600
Single 70 70	4500	4500	4500	5000

Studs at maximum 300mm centres.

Gypframe 72 EDCL 80 CurveLyner Channel should be used at head and base. Refer to table 1 for minimum bending radii.

For maximum heights using different plasterboard thickness, refer to Technical Guidance Notes 123 - Maximum system heights. Use maximum height based on 600mm centres for a straight wall, and reduce the stud centres to those shown above.

Planning – key factors

Board joints

The positioning of vertical board joints on exposed board layers at the apex of the curve should be avoided. Where a curved wall continues to become a straight wall, the curved board should extend onto the straight wall by at least one stud bay. 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 a distance of 600mm off the curve.

Degree of curvature

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

Fixing floor and ceiling channels

Gypframe 72 EDCL 80 CurveLyner Channels must be securely fixed in two lines at 300mm centres in each line. 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.

Tiling

Glasroc H TileBacker can be used as a substrate for tiling but should not be exposed to running water. Care should be taken not to over tighten screws when fixing boards and all screw heads should be fully filled with adhesive.

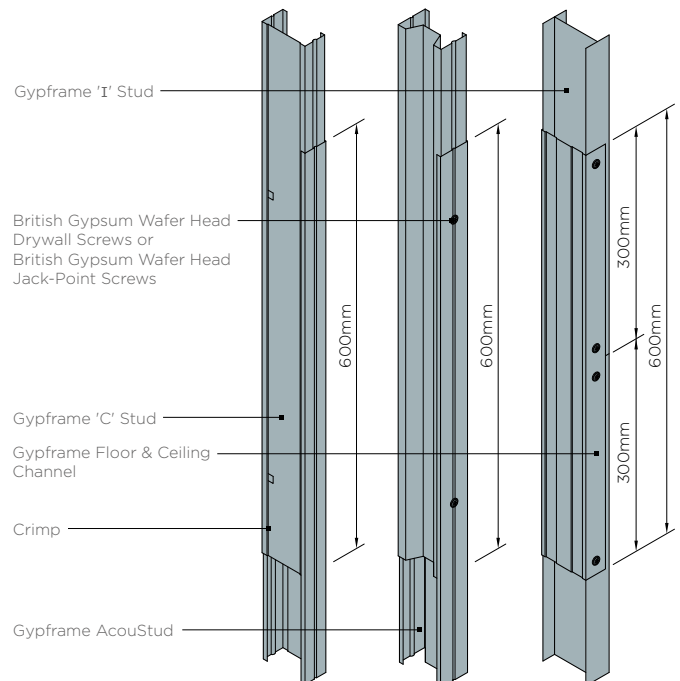
Impact resistance

Glasroc F MultiBoard is a glass-reinforced plasterboard that has excellent mechanical properties, is not brittle and therefore is not prone to cracking or shattering when handled.

Splicing

If required, studs can be extended by following the stud splicing details below.

Stud splicing detail



Sound insulation

Reducing the centres of the metal studs can have a detrimental effect on sound insulation. Include 25mm Isover Acoustic Partition Roll (APR 1200) in the cavity for optimised acoustic performance.

Board finishing

A superior finish is achieved by applying one of our Thistle or ThistlePro plasters, alternatively Gyproc Jointing products can be used.