Performance selector

When specifying a partition, lining or ceiling system, it is the performance characteristics that normally determine the solution. The system selector (pages 8 and 9) have been developed with this in mind. Simply select from the performance categories to easily identify the Gyproc systems that best satisfy the project requirements. A brief explanation of the categories are given below:

1 The selector table shows the range of performances offered by each system.

0.50 - 0.75 Sound absorption - α_w & NRC

Absorption ratings used to describe the acoustic characteristics of a product. Used to determine and help specify the amount of acoustic comfort required within a space, controlling reverberation for better speech clarity. Typically used in schools and communal areas of apartments or other buildings.

33 - 62 Airborne sound insulation - R_w dB

Level of sound insulation afforded by a construction to adjacent areas in terms of airborne noise transmission, i.e. speech or music.

34 - 60 STC

This single figure rating method is the rating used for laboratory airborne sound insulation tests. The figure indicates the amount of sound energy being stopped by a separating building element when tested in isolation in the absence of any flanking paths.

68 - 57 Impact sound insulation – L_{nw} dB

Level of sound insulation afforded by a construction to adjacent areas in terms of impact noise transmission, i.e. footfall or furniture movement.

30 - 180 Fire resistance - minutes

Fire performance test results to the relevant standards.

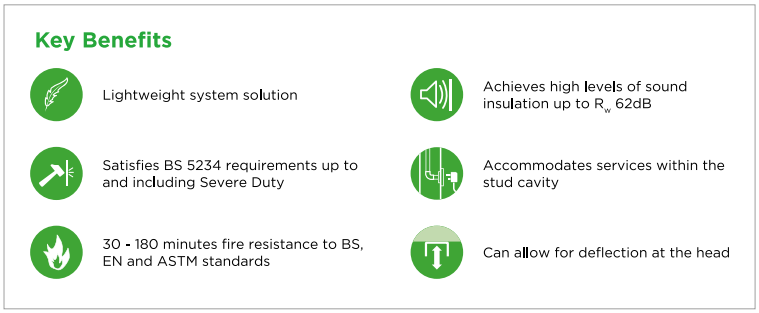
► For further information on the above terms and other performance criteria, please refer to section - **Technical performance and principles of system design**

Key benefits

Gyproc systems offer a huge amount of flexibility meaning that they can be tailored to meet the requirements of a wide range of requirements.

► Refer to System introduction pages.

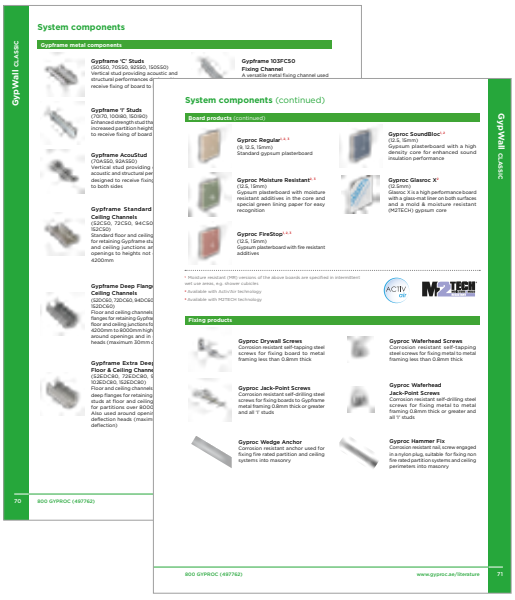
2 Key benefits as displayed in system introduction.



Selecting components

The system component pages give an overview of the components used within each Gyproc system. Not all components will be used in all specifications, as some products are interchangeable depending upon performance requirements.

► Refer to System components pages.



An illustration of the component and a brief description of its use and / or physical properties is included in the listing.

► Refer to System components pages.

Performance tables

Each performance table details the performance levels that each specification achieves. This includes the following, where appropriate:

- Fire resistance
- Partition and lining thickness
- Acoustic performance
- Maximum partition height
- Duty rating

Within each system, solutions are primarily sorted by fire performance, then by partition thickness, as shown in the example below:

► Refer to Performance pages

3 Each row in the table has a number that corresponds with the plan view drawings located above each table.

4 Plan view drawings, located above each table, illustrate the composition of each specification.

5 Fire resistance is the primary selector for solutions.

6 The fire resistance test standard that applies to performances quoted on the page.

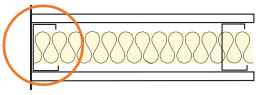
7 Important notes, relating to the performances quoted in the table, are located at the bottom of each table.

6 Table 1 – GypWall ROBUST 70mm Gypframe 'C' Studs (70S60) - single layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119 & ANSI / UL 263

3 1

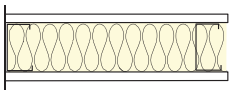
One layer of board each side of 70mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

2 4



One layer of board each side of 70mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

3



One layer of board each side of 70mm Gypframe 'C' Studs at 600mm centres. 75mm ISOVER Eco APR in the cavity. Linings as in table

Detail	Partition thickness mm	Board type	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
5 60 minutes fire resistance								
1	102	DuraLine	1 x 15	4000	41	42	Severe	29
2	102	DuraLine	1 x 15	4000	49	48	Severe	29
3 3	102	DuraLine	1 x 15	4000	50	51	Severe	29

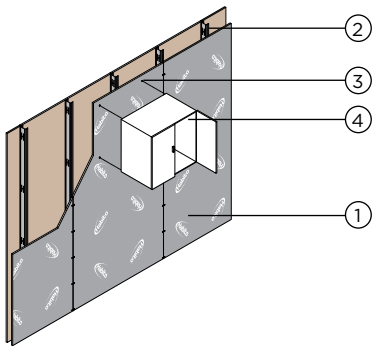
[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** section for increased heights.

7 **NB** For increased fixing capability replace above listed boards with equilant thickness of Gyproc Habito.

System design construction details

At the end of each system section, additional design information and construction detailing is included.

21



Habito direct fixing detail

1. Gyproc Habito plasterboard
2. Gypframe 'C' Stud
3. No. 10 woodscrew, directly fixed to board only
4. Wall cupboard

Products

Refer to the Products section, pages 311-354, for a listing of Gyproc components used in this publication.

Key	
	S/E - Square edge
	T/E - Tapered edge

Included in the listings are product details such as dimensions, weights, finish details and other useful information.

Width (mm)	Length (mm)	Edge Type
12.5mm		
1200	2400	S/E, T/E
1200	3000	S/E, T/E
15mm		
1200	2400	S/E, T/E
1200	3000	S/E, T/E

Note - Other lengths and thicknesses available upon request