



# Multi-Storey Acoustic Solutions

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01. High levels of FRR and STC performance;
02. The ability to penetrate wall linings with electrical and plumbing services (within certain limitations) without the need to fire seal those penetrations;
03. Wall linings can terminate at ceiling level.

GIB Noise Control® Systems include several central barrier type wall specifications that are suitable for lightweight terrace home designs. But what about large-scale apartment buildings? These types of designs typically utilise a primary structure made from steel and/or reinforced concrete, which then have non-load bearing partitions added to form the external and internal walls.

Do the designers and builders of these large-scale apartment buildings have any viable central barrier type intertenancy wall options? The answer is yes, they do.

The traditional framing material utilised for non-load bearing partitions in large-scale apartment buildings is light gauge steel. This is driven by cost and framing depth considerations. A narrower partition wall results in more useable floor area. Common framing arrangements for intertenancy partition walls include double C-section steel frame and single GIB® Quiet Stud® steel frame. A relatively new option is the connected central barrier type wall constructed from a double C-section steel frame. Examples of each of these three types of non-load bearing intertenancy wall specifications are shown in the table below. They, along with numerous other specifications, all appear in the GIB Noise Control® Systems Manual.

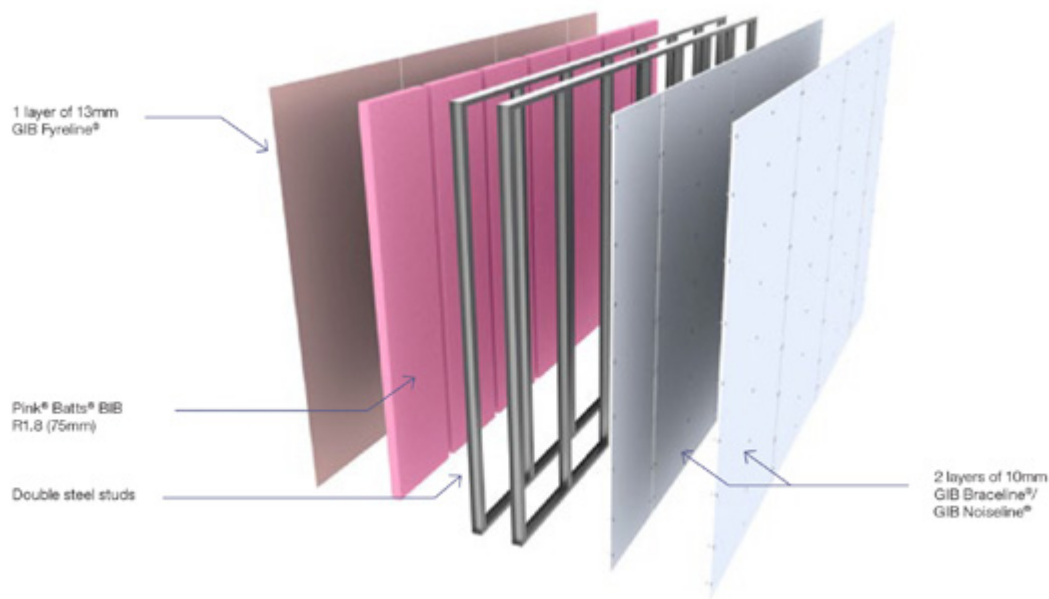
Wall types	GIB® specification number	FRR	STC	Partition width	Recommended maximum wall height
Double C-section steel frame	GBSA 60c	-/60/60	59	186mm	2700mm
Single GIB® Quiet Stud® steel frame	GBQSA 60a	-/60/60	55	128mm	3800mm
Connected central barrier double steel frame	GBSAB 60e	-/60/60	57	193mm	4000mm



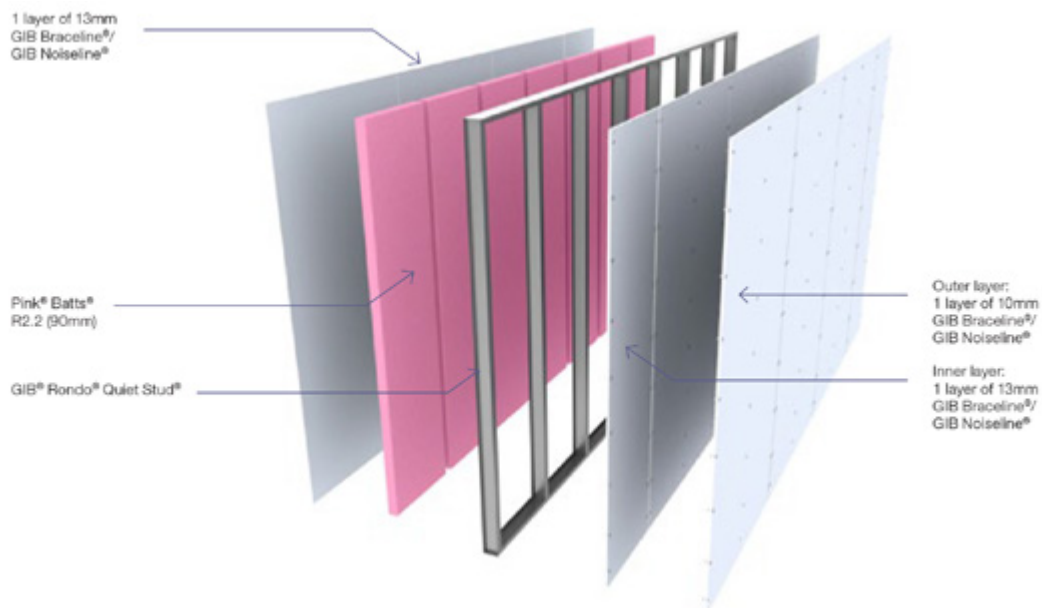
Whilst the FRR and STC performance of these three wall specifications are the same or similar, the construction of each one is very different. This can be seen by looking at the 3D views below. What can't be seen however are the inherent advantages that come with connected central barrier specification GBSAB 60e. Not only can it stretch to a maximum wall height of 4000mm when constructed from standard 64 x 34 x 0.50mm steel framing, it can

also accommodate unprotected electrical and plumbing penetrations through the wall linings (within certain limitations). This advantage over the other wall types can translate into a welcome reduction in the passive fire protection budget for the project. Having that uninterrupted central barrier also provides an additional level of confidence that the final installation will achieve the claimed levels of FRR and STC performance.

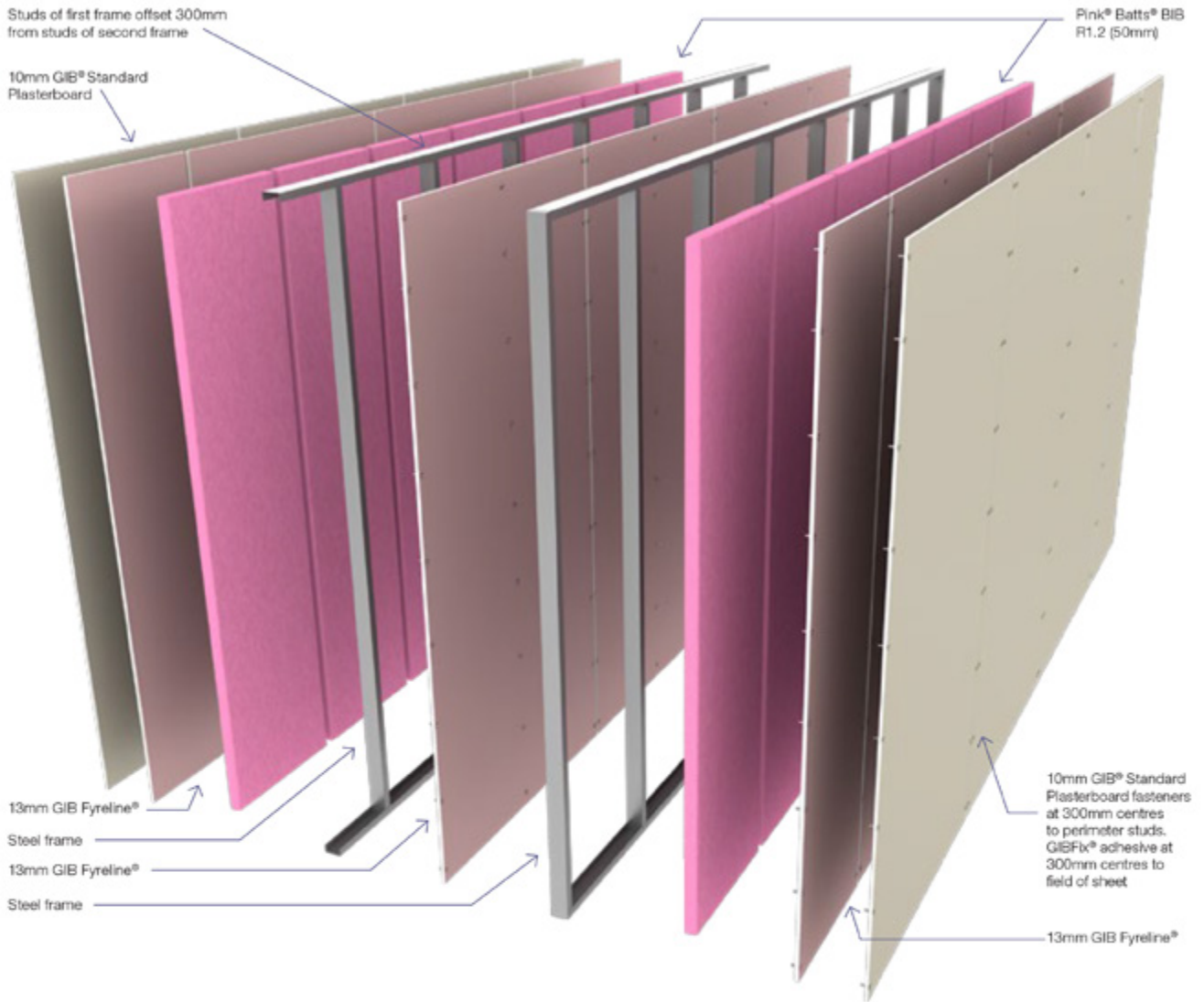
**Figure 1: GIB Noise Control® System specification number GBSA 60c.**



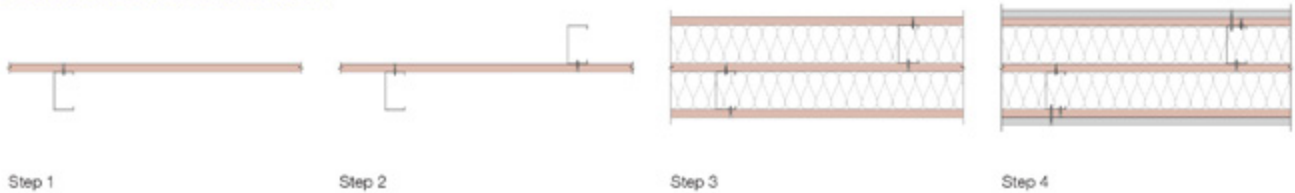
**Figure 2: GIB Noise Control® System specification number GBQSA 60a.**



**Figure 3: GIB Noise Control® System specification number GBSAB 60e.**



**CONSTRUCTION SEQUENCE**



For any further information, please contact the GIB® Helpline on 0800 100 442.