

Including new intertenancy central barrier wall systems and floor/ceiling systems.

# Introduction to the new GIB Noise Control® Systems literature

The GIB Noise Control® Systems literature has set the standard for effectively managing noise control in New Zealand over the last 26 years. Our last edition has been printed over 48,000 times and downloaded over 143,000 times.

With the increasing trend toward multi-unit homes, we undertook a thorough review of New Zealand's need for more systems and options for intertenancy separations. The result is the new GIB Noise Control® Systems literature that includes a range of new wall and floor/ceiling intertenancy systems, new and rationalised information, plus an expanded range of junction details.







### Developing GIB Noise Control® Systems

Development of the new systems featuring in the GIB Noise Control® Systems literature included extensive acoustic testing. This testing not only checked whether the systems met the requirements of Clause G6 of the NZBC, but also investigated the effects of lining types and wall lining penetrations on acoustic performance.

Testing was undertaken at the University of Auckland Acoustic Testing Facility, with a number of additional site tests conducted to confirm laboratory performance.

The image below shows a typical wall being prepared for testing. Noise is introduced on one side of the wall and the sound transmission loss represents the noise reduction from one side of the wall to the other. A single number STC value is then determined from sound transmission loss data.

For the new range of central barrier systems, the testing showed that the addition of penetrations, such as switch box and plumbing fittings, on both sides of the wall, had minimal effect on the STC rating achieved in the test.

Once we were happy with our systems development, the GIB Noise Control® Systems literature was submitted to our consultants, Marshall Day Acoustics, for peer review and to BRANZ for an in-depth and independent evaluation resulting in BRANZ Appraisal No.394[2017].

Request a hard copy or download the new GIB Noise Control® Systems literature at gib.co.nz



### What's new in the GIB Noise Control® Systems literature

### NINE LOAD BEARING AND NON-LOAD BEARING CENTRAL BARRIER WALL SYSTEMS, INCLUDING:

- Three new steel frame walls with GIB Barrierline<sup>®</sup> central barrier systems.
- Two staggered stud steel frame walls using a GIB Fyreline® central barrier.
- Four timber GIB Barrierline® central barrier systems launched last year.

### Benefits of the central barrier systems include:

- 60 minute FRR and high acoustic performance between STC 56–68.
- No acoustic or fire sealing required where building services penetrate wall linings (within limitations).
- Narrow footprint to maximise tenancy area of each unit.
- Range of cost effective designs to choose from. When comparing total cost of construction including labour, foundations
  and equipment GIB® Intertenancy Barrier Systems are some of the most cost effective in the market.

#### Steel stud with GIB Barrierline® central barrier:

New steel frame wall systems utilising a GIB Barrierline® central barrier. These systems have a minimum STC rating of 63 with a non-load bearing 60 minute FRR.

Specification number	LB/NLB	sтс	Rw	FRR	Lining requirements	Detail
Steel frame walls – with GIB Barrierline® central barrier						
GBSAB 60a	NLB	63	63	-/60/60	1 x 13mm GIB® Standard Plasterboard each side	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
GBSAB 60b	NLB	67	66	-/60/60	2 x 13mm GIB® Standard Plasterboard one side 1 x 13mm GIB® Standard Plasterboard other side	
GBSAB 60c	NLB	68	66	-/60/60	1 x 13mm GIB Braceline®/GIB Noiseline® each side	

### Staggered Steel stud with GIB Fyreline® central barrier:

New staggered steel stud wall systems utilising a 13mm GIB Fyreline® central barrier. These systems have a STC rating of 56–57 with a non-load bearing 60 minute FRR.

Specification number	LB/NLB	STC	Rw	FRR	Lining requirements	Detail
Staggered stu	d steel fra	me walls	= with 1	3mm GIB Fy	reline® central barrier	
GBSAB 60d	NLB	56	56	-/60/60	1 x 13mm GIB Fyreline® and 1 x 10mm GIB® Standard Plasterboard each side	<u> </u>
GBSAB 60e	NLB	57	58	-/60/60	1 x 13mm GIB Fyreline® and 1 x 13mm GIB® Standard Plasterboard each side	\(\text{\tint{\text{\tint{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\tin\tin\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex

### FOUR NEW LIGHTWEIGHT INTERTENANCY FLOOR/CEILING SYSTEMS

These floor/ceiling systems provide noise control and fire resistance between tenancies and include two steel joist options and two options that incorporate a floating floor to allow the use of hard flooring surfaces, whilst still maintaining compliance with Clause G6 of the NZBC.

Notes: Floor/ceiling system GBDFA 60c was removed as part of our effort to rationalise the range of systems we offer.

Specification number	LB/NLB	STC	IIC*	FRR	Lining requirements	Detail
Floor/ceiling s	ystems					
GBDFA 60d	LB	67	57	60/60/60	2 x 13mm GIB Fyreline®	Floor ceiling
GBDFA 60e	LB	65	56	60/60/60	2 x 13mm GIB Fyreline®	Floor ceiling
GBSJA 45	LB	55	48	45/45/45	2 x 13mm GIB Fyreline®	Floor ceiling
GBSJA 60	LB	56	49	60/60/60	1 x 16mm and 1 x 13mm GIB Fyreline®	Floor ceiling

Note: GIB Barrierline® plasterboard is manufactured to Winstone Wallboards specification by a reputable overseas manufacturer. \*Refer to system specification sheet for range of floor covering dependent IIC performance levels.



### Other key changes

### Wet area linings in GIB Noise Control® Systems

We've introduced a section that clearly shows how you can use GIB Aqualine® in GIB Noise Control® Systems for wet areas, and its effects on STC and FRR.

# Single steel frame system (non-load bearing) with acoustic resilient mount

System GBSIC 45a was added to complement the existing range of three load bearing single timber frame walls that also incorporate the acoustic resilient mount. This addition ensures we have acoustic resilient mount options for both timber and steel framed systems.

## Tables covering steel stud sizes, centres and wall heights

Originally launched in the GIB Noise Control® Systems supplement, we've incorporated this into the GIB Noise Control® Systems literature for ease of reference.

This section includes tables providing guidance for the maximum permitted heights of non-load bearing steel frame walls used in GIB® Fire Rated and GIB Noise Control® Systems. Maximum permitted wall height is a function of stud size, stud centres and FRR.

# Expanded range of typical junction details and system components

We've created more CAD details showing junction details and system components; including further details on our new steel and timber frame central barrier walls. These are available for download on our website.

### **Rationalised content**

We've also reviewed and reduced content to ensure our new literature is relevant to what you're looking for.

- Reduced the length of the 'When and where to specify noise control' section.
- Moved the Environmental Noise section to the GIB Noise Control<sup>®</sup> Systems supplement.

### **Deflection head details**

We've included new deflection head details for the most common non-load bearing noise control walls. These are commonly required to accommodate the live load deflections of suspended floors.

### GIB Noise Control® Systems FAQs

### Q: Where can I get copies of the new GIB Noise Control® Systems literature and related resources?

- A: The GIB Noise Control® Systems literature is available on the GIB® website for download (or order a hard-copy). Related resources include:
  - Revit, CAD and BIM details and objects are available on the GIB® website for easy incorporation into design.
  - Specifications are available from Masterspec and SmartSpec.
  - The GIB Noise Control® Systems Supplement is a live updated document available for download from the GIB® website.
  - Models/prototypes are available to view at GIB<sup>®</sup> Digest Series events.
  - As always, if you need more information, call us on the GIB® Helpline on 0800 100 442.

# Q: Will the old GIB Noise Control® Systems literature still be available?

A: The GIB Noise Control® Systems literature, which was published in March 2006, will be out of circulation as a hard-copy document. However, archived literature is available on the GIB® website for download.

### Q: How do I get specific help on my project?

A: The GIB® website contains comprehensive information that will assist with most requirements. If you have any questions or need specific advice, call the GIB® Helpline on 0800 100 442 or contact your GIB® representative.

### Q: Are the systems in the GIB Noise Control® Systems literature covered by the GIB® Product and Systems Warranty?

A: Yes. As always, we stand behind our products and systems 100%. They're designed, tested and produced specifically for New Zealand conditions, and come with our GIB® Product and Systems Warranty. The BRANZ appraisal means you can specify and build with confidence. Please refer to the GIB® Product and Systems Warranty on the GIB® website for full details.



Visit gib.co.nz to download the new GIB Noise Control® Systems literature and to watch the short video of the changes.

Contact your GIB® representative for more information and specific advice for your current and future projects.