New GIB® Fire Rated Systems Literature

Including new products, systems and details.

Introduction to the new GIB® Fire Rated Systems literature

Winstone Wallboards has updated its GIB® Fire Rated Systems literature. This technical literature, detailing passive fire wall, ceiling and shaft systems as well as junction details and one-sided penetrations, is a core resource for the design and detailing of fire rated systems within New Zealand.

This update has largely focused on simplifying and clarifying information, systems and details to make it easier for both designers and installers to correctly and quickly utilise the information within the GIB® Fire Rated Systems literature. In addition, reducing costs of fire systems and detailing has also been a key focus, leading to many of the new systems, underscoring our commitment to lowest total cost systems.

In addition to a wider range of systems, Winstone Wallboards has released a new product: GIB Fire Soundseal®, a single component, non-sag, acrylic based interior sealant for use where specified in GIB Noise Control® and GIB® Fire Rated Systems applications.

Additional or clarified guidance has been included on NLB steel stud heights, top-down fire exposure design, and use of metal components within suspended ceiling grid systems.

Clarifications to junction details have also been made, and new deflection head details have been added.

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GIB® FIRE RATED SYSTEMS

PRODUCT & SYSTEM WARRANTY
GIB

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

Overview of changes:

NEW PRODUCT

- GIB Fire Soundseal®
- GIB® Grabber® Drill Point Fine Thread screw

NEW SYSTEMS

- GBSm 10 - Smoke separation wall
- GBTL 30c
- GBUW 60 / GBUC 60 – Revised
- GBUW 180
- GBS 90b / GBS 60b
- GBS 120b
- GIB® Panel Shaft

OTHER ADDITIONS

- NLB steel stud centres and wall height guidance
- ‘Top-down’ fire exposure design guidance
- Metal components used within suspended ceiling grid systems
- Clarifications to junction details including deflection heads

What's new in the GIB® Fire Rated Systems literature?

NEW AND REVISED SYSTEMS

Recent fire resistance testing has allowed us to simplify some of our systems and offer more cost effective configurations.

GBSm 10 - Smoke separation wall

A 'smoke separation wall' is defined as the building element that can stop the passage of smoke between two spaces. The minimum lining requirement is a single layer of 10mm GIB® Standard plasterboard, fixed each side of timber or steel framing in accordance with the GIB® Site Guide.

GBTL 30c

This is an alternative two-way 30 minute FRR timber framed wall system using 10mm GIB® Standard plasterboard each side and mechanically fixed only. The existing systems require either a single 10mm GIB Fyreline® or 13mm GIB® Standard plasterboard and GBTL 30c offers an additional cost-effective option.

GBUW 60 and GBUC 60 - Revised

GBUW 60b and GBUC 60 previously required 1 x 16mm plus 1 x 13mm GIB Fyreline®. Recent fire furnace tests have established that 2 x 13mm GIB Fyreline® can now be used. This brings GBUC 60 in line with GBUW 60 and the 60 minute protection for columns and beams.

GBUW 180

GBUW 180 is now included in the literature which provides a one-way 180 minutes FRR with three layers of 19mm GIB Fyreline®.

GBS 90b / GBS 60b

GBS 90b / GBS 60b is a new non-loadbearing staggered stud steel frame wall system with a 13mm GIB Fyreline® central barrier.

Without service penetrations in the outer lining, the system achieves a 90 minute FRR (GBS 90b). A maximum of two metal or PVC plumbing services up to 90 x 50mm rectangular or 65mm in diameter can be installed in the outer linings without any specialist fire stopping, but in this case the FRR reduces to 60 minutes (GBS 60b).

GBS 120b

GBS 120b is a new non-loadbearing single stud steel frame wall system that achieves -/120/120 FRR with 2 x 13mm GIB Fyreline® each side.

GIB® Panel Shaft

We often receive enquiries from customers asking how to install linings from a non-accessible side. Common applications are risers, shafts and also new noise control and fire rated systems adjacent to existing walls. GIB® Panel shafts can be constructed by fabricating short panel lengths on site, erecting them from the landing side and connecting them together before lining the final open side. The system uses conventional framing and lining materials and does not need plaster stopping of sheet joints on the far side.

NEW PRODUCT

GIB Fire Soundseal®

GIB Fire Soundseal® is a single component, non-sag, acrylic based interior sealant for use as specified in GIB® Fire Rated Systems and where GIB Soundseal® is specified in GIB Noise Control® Systems applications.

GIB® Grabber® Drill Point Fine Thread screw

GIB® Grabber® Drill Point Fine Thread screw is designed for fixing into heavier gauge steel, available in 32mm x 8g and 47mm x 8g.

FAQs for GIB® Fire Rated Systems

In what applications can GIB Fire Soundseal® be used and can I substitute another product?

GIB Fire Soundseal® is only intended for use as specified within GIB® Fire Rated Systems and GIB Noise Control® Systems. If substitution takes place, obtain verification from the supplier of the alternative product.

My building is close to a boundary and designed in accordance with NZS3604:2011 and Acceptable Solution C/AS1. Do I need to consider post-fire stability?

Single and small multi-unit dwellings and residential garages designed and constructed in accordance with Acceptable Solutions B1/AS1 and C/AS1 are considered low-risk and do not need separate post-fire stability analysis. The new literature clarifies this.

What is the difference between structural adequacy and stability?

Structural adequacy is the first number in the FRR sequence and relates to the ability of a specimen to resist applied vertical loads during the standard test for fire resistance. *Stability* in the context of fire resistance refers to the ability of a building element to resist post-fire horizontal forces.

Does the new fire literature have information for walls under metal deck floors?

No. The printed literature gives basic details for flat concrete floors. We will be developing and releasing further details, including for proprietary floor systems, on our website gib.co.nz

What is the difference between one and two-way fire resistance ratings?

Specifications with a one-way FRR only protect against fire from the side where the protective linings are attached, whereas a two-way FRR applies in either direction.

Why have steel stud sizes changed?

Steel stud sizes in our previous literature did not always align with common use. The minimum 64mm steel stud size for 30 and 60 minute walls remains but most higher rated walls require 92mm x 0.75 BMT studs. NLB steel stud centres and wall height tables have been added.

Is protection available for timber columns and beams?

Yes, the literature now includes options to retain the structural adequacy of heavy timber columns and beams by direct fixing protective linings. The thickness, type and number of layers depends on the required FRR and is similar to what is required for steel members.

Can I use conventional plasterboard back-blocking in a fire rated ceiling?

Plasterboard back-blocking in accordance with the GIB® Site Guide adds weight to a ceiling which could cause premature failure in a fire test. In a fire rated system sheet joints are commonly fixed to framing and back-blocking must not be used unless specifically permitted.

Do I need to plaster stop sheet joints in a ceiling space?

Yes, however as an alternative to using wet trades where joints cannot be seen, sheet joints can be covered with a 150mm wide strip of GIB® plasterboard, centrally placed over the sheet joint and screw fixed to framing at 300mm centres.

What is the best strategy for fire penetration design?

Resolve and specify fire rated service penetrations in the design office rather than on-site. Combine services as much as possible in ‘service highways’ or shafts which can themselves be fire rated, eliminating the need for many different and individual penetrations. The GIB® Fire Rated Systems literature provides generic details for the installation of one-sided penetrations. More elegant proprietary penetrations exist for one-sided and through penetrations. For proprietary systems contact the relevant penetration seal supplier.

Visit gib.co.nz to download the new GIB® Fire Rated Systems literature.

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