# **GIB**<sup>°</sup>

## EzyBrace<sup>®</sup> For Light Steel Frame Systems

GIB EzyBrace<sup>®</sup> Systems for use with light steel framing have been updated in March 2017 to offer improved simplicity and efficiency. Key changes include:

- UPDATED GIB EzyBrace<sup>®</sup> Bracing Design Software for light steel framing – Download free from gib.co.nz/ezybrace
- NEW Bracing for steel framing GS2s-NOM The new GIB<sup>®</sup> Bracing Element GS2s-NOM, allows internal steel frame walls lined with GIB<sup>®</sup> plasterboard on both sides and fastened off as per GS2s-NOM specifications to contribute towards bracing resistance.

This encourages more even bracing distribution throughout the building, while also potentially reducing the amount of fasteners and bracing elements such as GS1s and GS2s.

 Responsibly conservative bracing methodology GIB® Bracing Systems have been proven in New Zealand conditions for over 40 years. GIB EzyBrace® Systems continues to use responsibly conservative and reliable Bracing Unit ratings.

#### **CORNER FASTENER PATTERNS**

Fasteners must be placed no closer than 12mm from the paper bound sheet edge and no closer than 18mm from sheet ends or cut edges.





## GIB EzyBrace® Design Software for Light Steel Frame Systems

Developed in conjunction with National Association of Steel Frame Housing (NASH), updated software is now available for use with proprietor light steel framing systems.

#### Improved functionality

- Easily add or delete bracing lines.
- Easily alter GIB<sup>®</sup> Bracing elements mid plan or include custom bracing elements.
- Exterior line check function.
- Improved opening, printing and saving functions now select from up to 10 of your most recently saved plans.

#### In built help function

 Handy in built help function providing the answers to common design questions such as wind zones, earthquake zones and cladding weight

#### Availability

 GIB EzyBrace<sup>®</sup> Systems Software is available for both Microsoft and Mac operating systems

Download GIB EzyBrace<sup>®</sup> design software from gib.co.nz/ezybrace



## GIB EzyBrace® Naming Conventions for Light Steel Frame Systems

Bracing element	Description
GS1s	GIB® Standard plasterboard one side – Hold-downs required.
GS2s	GIB® Standard plasterboard both sides – Hold-downs required.
GS2s-NOM	GIB® Standard plasterboard both sides, fixing pattern as GS2s-NOM specification sheet.
GB1s	GIB Braceline® plasterboard one side – Hold-downs required.
GBPs	GIB Braceline® plasterboard one side, Structural plywood other side – Hold-downs required.



## GIB EzyBrace® Systems specification GS1s

Specification code	Minimum length (m)	Lining requirement	Other requirements	BU rating per metre	
				Wind	Earthquake
GS1s	0.4	10 mm GIB® Standard plasterboard one side	Hold-down	60	70
	1.2			95	80

#### WALL FRAMING

Wall framing to comply with,

- NZBC B1 Structure
- NZBC B2 Durability

Steel framing dimensions and height as determined by Specific Engineering Design. C section studs shall have a minimum thickness of 0.75 mm and minimum nominal depth of 90 mm with 35 mm wide flanges.

#### **BOTTOM PLATE FIXING**

#### **Timber floor**

5mm washer as illustrated, fixed to timber floor framing using a 12 mm x 100 mm galvanized coach screw or 4 x 75mm Type 17 class 3 screws.

#### **Concrete floor**

5mm washer as illustrated, fixed to the concrete slab using a proprietary concrete anchor with a minimum uplift capacity of 10kN taking into consideration concrete slab thickness (internal walls) and edge distance (external walls).

#### WALL LINING

- One layer of 10 mm GIB® Standard plasterboard.
- Vertical or horizontal fixing permitted.
- Sheet joints shall be touch fitted.
- Use full height sheets where possible.

#### **PERMITTED ALTERNATIVES**

The Bracing Unit ratings for system GS1s apply to 10mm GIB<sup>®</sup> Standard plasterboard and any other 10 or 13mm GIB<sup>®</sup> plasterboard.

#### FASTENING THE LINING Fasteners

32mm x 6g GIB<sup>®</sup> Grabber<sup>®</sup> Drywall Screws.

#### **Fastener Centres**

50,100,150,225,300mm from each corner and then 150mm thereafter around the perimeter of the bracing element. For vertically fixed sheets, place fasteners at 300mm centres to the intermediate sheet joints. For horizontally fixed sheets, place single fasteners to the sheet edge where it crosses the stud. Use daubs of GIBFix® adhesive at 300mm centres to intermediate studs. Place fasteners no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### JOINTING

All fastener heads stopped and all sheet joints GIB<sup>®</sup> Joint Tape reinforced and stopped in accordance with the GIB<sup>®</sup> Site Guide.



In order for GIB® systems to perform as tested, all components must be installed exactly as prescribed. Substituting components produces an entirely different system and may seriously compromise performance. Follow the specifications. This specification sheet is issued in conjunction with the publication GIB EzyBrace® Systems

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## GIB EzyBrace® Systems specification GS2s

Specification	Minimum	Lining requirement	Other requirements	BU rating per metre	
code	length (m)			Wind	Earthquake
GS2s	0.4	10 mm GIB® Standard plasterboard both sides	Hold-down	75	95
	1.2			130	110

#### WALL FRAMING

Wall framing to comply with,

- NZBC B1 Structure
- NZBC B2 Durability

Steel framing dimensions and height as determined by Specific Engineering Design. C section studs shall have a minimum thickness of 0.75 mm and minimum nominal depth of 90 mm with 35 mm wide flanges.

#### **BOTTOM PLATE FIXING**

#### **Timber floor**

5mm washer as illustrated, fixed to timber floor framing using a 12 mm x 100 mm galvanized coach screw or 4 x 75mm Type 17 class 3 screws.

#### **Concrete floor**

5mm washer as illustrated, fixed to the concrete slab using a proprietary concrete anchor with a minimum uplift capacity of 12kN taking into consideration concrete slab thickness (internal walls) and edge distance (external walls).

#### WALL LINING

- One layer of 10 mm GIB<sup>®</sup> Standard plasterboard each side of the frame.
- Vertical or horizontal fixing permitted.
- Sheet joints shall be touch fitted.
- Use full height sheets where possible.

#### **PERMITTED ALTERNATIVES**

The Bracing Unit ratings for system GS2s apply to 10mm GIB<sup>®</sup> Standard plasterboard and any other 10 or 13mm GIB<sup>®</sup> plasterboard.

#### FASTENING THE LINING Fasteners

32mm x 6g GIB<sup>®</sup> Grabber<sup>®</sup> Drywall Screws.

#### **Fastener Centres**

50,100,150,225,300mm from each corner and then 150mm thereafter around the perimeter of the bracing element. For vertically fixed sheets, place fasteners at 300mm centres to the intermediate sheet joints. For horizontally fixed sheets, place single fasteners to the sheet edge where it crosses the stud. Use daubs of GIBFix® adhesive at 300mm centres to intermediate studs. Place fasteners no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### **JOINTING**

All fastener heads stopped and all sheet joints GIB<sup>®</sup> Joint Tape reinforced and stopped in accordance with the GIB<sup>®</sup> Site Guide.





## GIB EzyBrace® Systems specification GS2s-NOM

Specification	Specification Minimum Lining requirement code length (m)	Lining requirement	Other requirements	BU rating per metre	
code				Wind	Earthquake
GS2s-NOM	0.4	10 mm GIB® Standard plasterboard both sides	Hold-down	65	60
	1.2			80	65

#### WALL FRAMING

Wall framing to comply with,

- NZBC B1 Structure
- NZBC B2 Durability

Steel framing dimensions and height as determined by Specific Engineering Design. C section studs shall have a minimum thickness of 0.75 mm and minimum nominal depth of 90 mm with 35 mm wide flanges.

#### **BOTTOM PLATE FIXING**

#### **Timber floor**

3mm washer as illustrated, fixed to timber floor framing using a 12 mm x 100 mm galvanized coach screw or 4 x 75mm Type 17 class 3 screws.

#### **Concrete floor**

3mm washer as illustrated, fixed to the concrete slab using a proprietary concrete anchor with a minimum uplift capacity of 8kN taking into consideration concrete slab thickness.

#### WALL LINING

- One layer of 10 mm GIB<sup>®</sup> Standard plasterboard each side of the frame.
- Vertical or horizontal fixing permitted.
- Sheet joints shall be touch fitted.
- Use full height sheets where possible

#### **PERMITTED ALTERNATIVES**

The Bracing Unit ratings for system GS2s-NOM apply to 10mm GIB<sup>®</sup> Standard plasterboard and any other 10 or 13mm GIB<sup>®</sup> plasterboard.

#### FASTENING THE LINING Fasteners

32mm x 6g GIB<sup>®</sup> Grabber<sup>®</sup> Drywall Screws.

#### **Fastener Centres**

50, 300mm from each corner and 300mm maximum thereafter around the perimeter of the bracing element. For horizontally fixed sheets, place single fasteners to the sheet edge where it crosses the stud. Use daubs of GIBFix<sup>®</sup> adhesive at 300mm maximum centres to intermediate studs. Place fasteners no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### JOINTING

All fastener heads stopped and all sheet joints GIB<sup>®</sup> Joint Tape reinforced and stopped in accordance with the GIB<sup>®</sup> Site Guide.





## GIB EzyBrace® Systems specification GBPs

Specification code	Minimum length (m)	Lining requirement	Other requirements	BU rating per metre	
				Wind	Earthquake
GBPs	0.4	10 mm GIB Braceline <sup>®</sup> plasterboard one side and minimum 7mm structural plywood to AS/NZS 2269.0:2012 to the other side	Hold-down	100	95
	0.6			130	120

#### WALL FRAMING

Wall framing to comply with,

- NZBC B1 Structure
- NZBC B2 Durability

Steel framing dimensions and height as determined by Specific Engineering Design. C section studs shall have a minimum thickness of 0.55 mm and minimum nominal depth of 75mm with 35 mm wide flanges.

#### **BOTTOM PLATE FIXING**

#### **Timber floor**

0.95 BMT bracket and 5 mm washer as illustrated, fixed to timber floor framing using a 12 mm x 100 mm galvanised coach screw.

#### **Concrete floor**

0.95 BMT bracket and 5 mm washer as illustrated, fixed to the concrete slab using a proprietary concrete anchor with a minimum uplift capacity of 12 kN taking consideration concrete slab thickness (internall walls) and edge distance (external walls).

#### WALL LINING

- 10 mm GIB Braceline® plasterboard one side of the frame.
- Vertical or horizontal fixing permitted.
- Sheet joints shall be touch fitted.
- Use full height sheets where possible.
- The other side of the frame is lined with minimum 7 mm structural plywood AS/NZS 2269.0:2012.

#### **PERMITTED ALTERNATIVES**

The Bracing Unit ratings for system GBPs apply to 10mm GIB Braceline® plasterboard.

#### **FASTENING THE LINING**

#### Fasteners

32mm x 6g GIB<sup>®</sup> Grabber<sup>®</sup> Drywall Screws (use in both plasterboard and plywood fixing).

#### **Fastener Centres**

150 mm around the perimeter of the bracing element starting at 50 - 50 mm from the bracing element corners.

#### **GIB Braceline®**

For vertical fixing, place fasteners at 300 mm centres at sheet joints in the tapered sheet edges in the field of the bracing element.For horizontal fixing, place single fasteners in the tapered edge where sheets cross studs.Use daubs of GIBFix® All-Bond adhesive at 300mm centres to intermediate studs in the body of the sheets. Place fasteners a minimum of 12mm from vertical sheet edges and 18mm from horizontal sheet edge.

#### Plywood

Vertical sheet fixing only. Within the bracing element place fasteners at 150 mm centres along the sheet joints at 300 mm centres to intermediate framing.

#### JOINTING

All fastener heads stopped and all sheet joints GIB<sup>®</sup> Joint Tape reinforced and stopped in accordance with the GIB<sup>®</sup> Site Guide.





## GIB EzyBrace® Systems specification GB1s

Specification	Minimum Lining requirement Other requiremen	Other	BU rating per metre		
code			requirements	Wind	Earthquake
GB1s	0.4	10 mm GIB Braceline® plasterboard one side	Hold-down	70	85
	1.2			125	105

#### WALL FRAMING

Wall framing to comply with,

- NZBC B1 Structure
- NZBC B2 Durability

Steel framing dimensions and height as determined by Specific Engineering Design. C section studs shall have a minimum thickness of 0.75 mm and minimum nominal depth of 90 mm with 35 mm wide flanges.

#### **BOTTOM PLATE FIXING**

#### **Timber floor**

5mm washer as illustrated, fixed to timber floor framing using a 12 mm x 100 mm galvanized coach screw or 4 x 75mm Type 17 class 3 screws.

#### **Concrete floor**

5mm washer as illustrated, fixed to the concrete slab using a proprietary concrete anchor with a minimum uplift capacity of 12kN taking into consideration concrete slab thickness (internal walls) and edge distance (external walls).

#### WALL LINING

- One layer of 10 mm GIB Braceline® plasterboard.
- Vertical or horizontal fixing permitted.
- Sheet joints shall be touch fitted.
- Use full height sheets where possible.

#### **PERMITTED ALTERNATIVES**

The Bracing Unit ratings for system GB1s apply to 10 mm GIB Braceline<sup>®</sup>.

#### **FASTENING THE LINING**

#### Fasteners

32mm x 6g GIB® Grabber® Drywall Screws.

#### **Fastener Centres**

50,100,150,225,300mm from each corner and then 150mm thereafter around the perimeter of the bracing element. For vertically fixed sheets, place fasteners at 300mm centres to the intermediate sheet joints. For horizontally fixed sheets, place single fasteners to the sheet edge where it crosses the stud. Use daubs of GIBFix® adhesive at 300mm centres to intermediate studs. Place fasteners no closer than 12mm from paper bound sheet edges and 18mm from any sheet end or cut edge.

#### JOINTING

All fastener heads stopped and all sheet joints GIB<sup>®</sup> Joint Tape reinforced and stopped in accordance with the GIB<sup>®</sup> Site Guide.





FOR MORE INFORMATION VISIT GID.CO.NZ

or call the gib® helpline 0800 100 442