GIB®

Noise Control Systems

Specification and installation manual

CBI5113

SEPTEMBER 2017

Floor/ceiling — timber joists

Specification number	Performance		Specifications	
GBDFA 60d	**STC**	67	**Lining**	2 x 13mm GIB Fyreline®
	Rw	65	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	57–76

JOINTING

All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled GIB® Site Guide.

SUPPLEMENTARY MATERIAL

For additional information covering general and wet area installations of James Hardie Secura Interior Flooring, refer to the James Hardie Secura Interior Flooring Installation Manual.

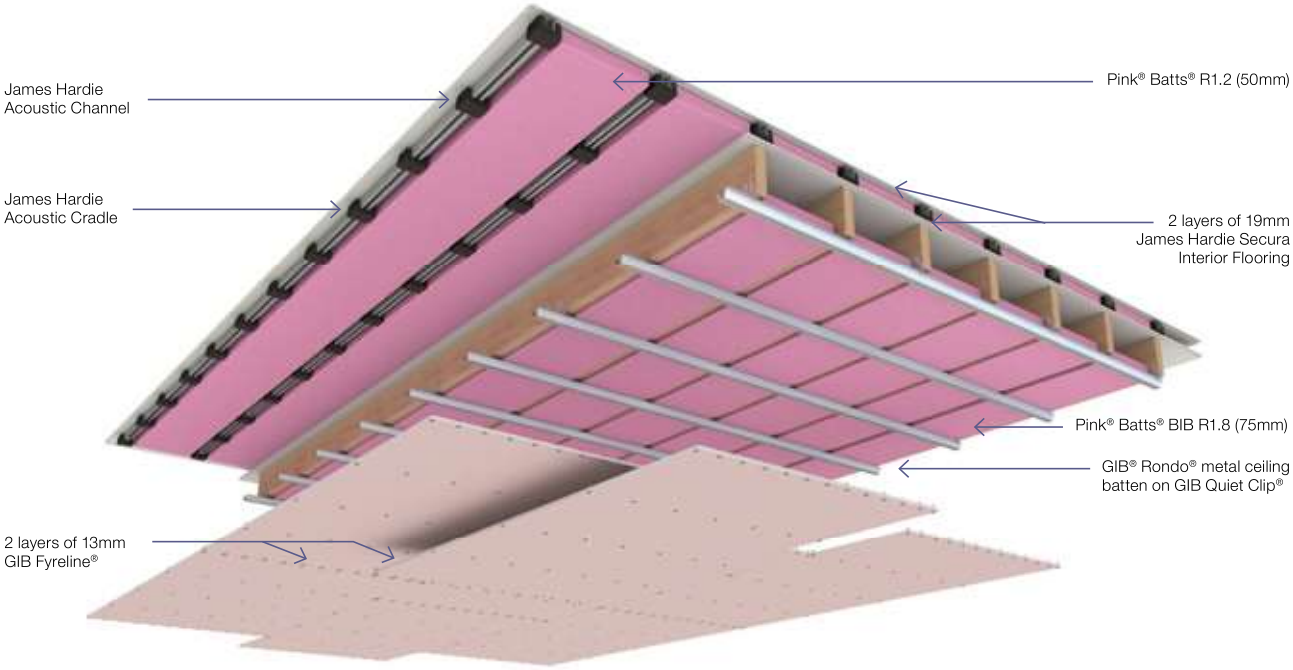
***Impact Insulation Class (IIC)**

A performance of IIC 57 is achieved with a bare floor.

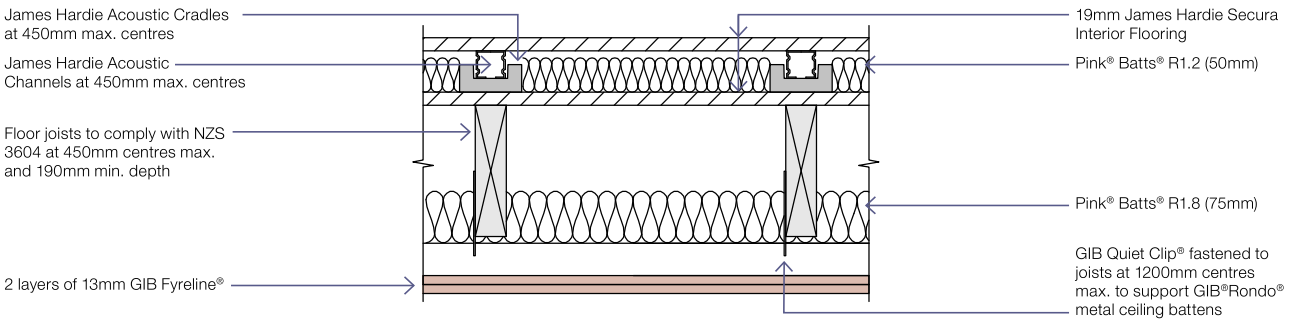
A performance of IIC 57 is achieved with a floor covering of 4mm cushion-backed vinyl.

A performance of IIC 76 is achieved with a floor covering of 40oz cut pile carpet loose laid on 8mm foam underlay.

Note: See page 90 for perimeter details.



CONSTRUCTION DETAIL



GNS020

Floor/ceiling — timber joists

Specification number	Performance		Specifications	
GBDFA 60e	**STC**	65	**Lining**	2 x 13mm GIB Fyreline®
	Rw	64	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	56–72

FLOOR FRAMING

Floor joists shall comply with NZS 3604, be spaced at 600mm centres maximum and have a depth of 190mm minimum.

ALTERNATIVE FLOOR FRAMING

Use either Hyspan® or Hybeam® HJ series joists designed for serviceability, no less than 190mm deep and spaced at no more than 600mm. Consult the joist manufacturer regarding construction of the solid blocking contained in the floor/ceiling to wall junctions.

FLOORING

Laminex Strandfloor® Tongue & Groove or Laminex Strandfloor® H3.1 Tongue & Groove flooring fixed at right angles to the floor joists. Sheet edges other than tongue and groove must be supported by floor joists. No nogging required to support longitudinal sheet joints. Sheets must be laid in a staggered pattern. The minimum length for a cut sheet is 900mm. Apply a 6mm continuous bead of adhesive to joists prior to installation of sheets.

FASTENING THE FLOORING

Adhesive is recommended for use in conjunction with mechanical fastening on both layers.

Adhesive

- Bostik – Alpha Grip; or,
- Sika – Nailbond Premium; or,
- Holdfast – Gorilla Grip; or,
- HB Fuller – Sturdi Bond.

Adhesive shall be applied in a continuous 5mm bead to all floor joists and between sheet ends. A 2mm bead shall be applied along the tongue of the tongue & groove panels as they are laid.

Fasteners

45mm x 8g wood thread self drilling screws (corrosion resistant).

Fastener Centres (both layers)

200m centres along each joist. Place fasteners no closer than 15mm to longitudinal and transverse sheet edges. Place fasteners no closer than 50mm to sheet corners.

FLOATING FLOOR AND FLOORING VOID SOUND CONTROL INFILL

Space AcoustiFlor™ Acoustic Cradles at 450mm maximum centres on the bottom layer of Laminex Strandfloor® Tongue & Groove flooring. The AcoustiFlor™ Acoustic Cradles do not need to be aligned with the timber floor joists and are not to be fixed down to the bottom layer of Laminex Strandfloor® Tongue & Groove flooring.

Place the Acoustiflor™ Structural Battens in the AcoustiFlor™ Acoustic Cradles. Space AcoustiFlor™ Structural Battens at 400mm maximum centres.

Lay Pink® Batts® R1.2 (50mm) glass wool insulation between the Acoustiflor™ Structural Battens.

Laminex Strandfloor® Tongue & Groove flooring. fixed at right angles to the Acoustiflor™ Structural Battens. Sheet edges other than tongue and groove must be supported by battens. Sheets must be laid in a staggered pattern. The minimum length for a cut sheet is 900mm. Ensure the sheets are laid the correct way down depending on the final finish i.e. tiles or vinyl. Apply a 6mm continuous bead of adhesive to joists prior to installation of sheets.

Allow a 5mm minimum gap where sheet edges butt into external/internal walls. Fill gap with GIB Soundseal® acoustic sealant.

In designated wet areas there is a need to seal the sheet joints and apply a waterproof membrane. If tiles are to be applied as a final finish there may be a requirement to form one or more control joints.

GIB QUIET CLIP® AND BATTENS

The GIB Quiet Clip® shall be fastened to the joists at maximum 1200mm centres (and no less than 900mm centres) to support the GIB® Rondo® metal ceiling battens.

INSTALLING THE GIB QUIET CLIP®

Use 3 x 32mm x 8g GIB® Grabber® Self Tapping Wafer Head Screws. Insert the first screw into the middle rubber grommet, tighten enough to hold the GIB Quiet Clip® in place, adjust the clip to the correct height, insert the remaining two screws and tighten. Do not overtighten the screws to the point where the grommet is crushed. The screws should be tightened enough to allow the flexibility to remain in the connection between the grommet and the timber joists.

CEILING VOID SOUND CONTROL INFILL

Ceiling overlaid with Pink® Batts® BIB (75mm) glass wool insulation.

CEILING LINING

2 layers of 13mm GIB Fyreline® fixed at right angles to the steel battens.

Offset the joints of the outer layer by 600mm from those of the inner layer. All sheet end butt joints shall occur on the battens and are offset between the first and second layers. Sheet joints are touch fitted.

FASTENING THE LINING

Fasteners

Inner layer: 32mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Outer layer: 41mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Fastener centres (both layers)

200mm centres along each batten and at 100mm centres along sheet end butt joints. Place fasteners no closer than 12mm to the sheet edges.

Floor/ceiling — timber joists

Specification number	Performance		Specifications	
GBDFA 60e	**STC**	65	**Lining**	2 x 13mm GIB Fyreline®
	Rw	64	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	56–72

ACOUSTIC SEALANT

A bead of GIB Soundseal® acoustic sealant is required around the ceiling perimeter.

WALL/CEILING JUNCTIONS

The internal angle between ceiling and walls must be protected by GIB-Cove® adhered with GIB-Cove® Bond, or boxed corners (square stopped) filled and taped in accordance with the publication entitled GIB® Site Guide.

JOINTING

All fastener heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled GIB® Site Guide.

SUPPLEMENTARY MATERIAL

For additional information covering general and wet area installations of Laminex Strandfloor® Tongue & Groove or Laminex Strandfloor® H3.1 Tongue & Groove flooring, refer to the Laminex Strandfloor® Technical Manual.

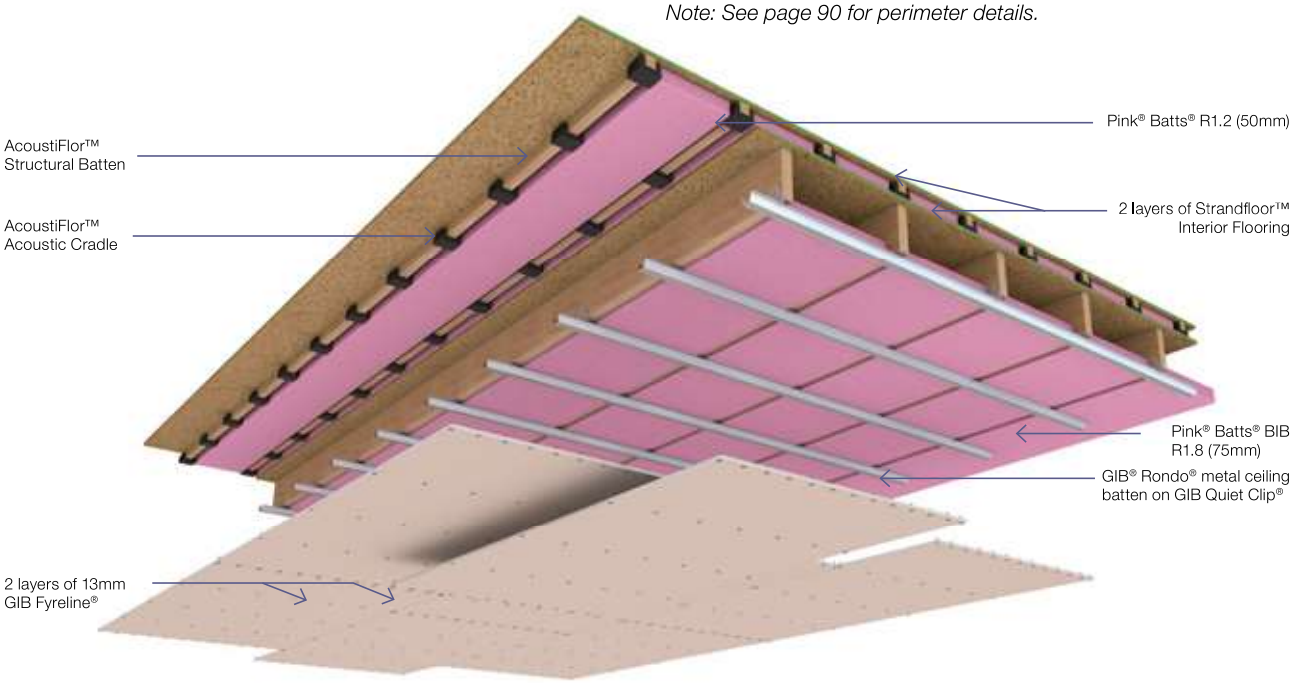
*Impact Insulation Class (IIC)

A performance of IIC 56 is achieved with a bare floor.

A performance of IIC 57 is achieved with a floor covering of 4mm cushion-backed vinyl.

A performance of IIC 72 is achieved with a floor covering of 40oz cut pile carpet loose laid on 8mm foam underlay.

Note: See page 90 for perimeter details.



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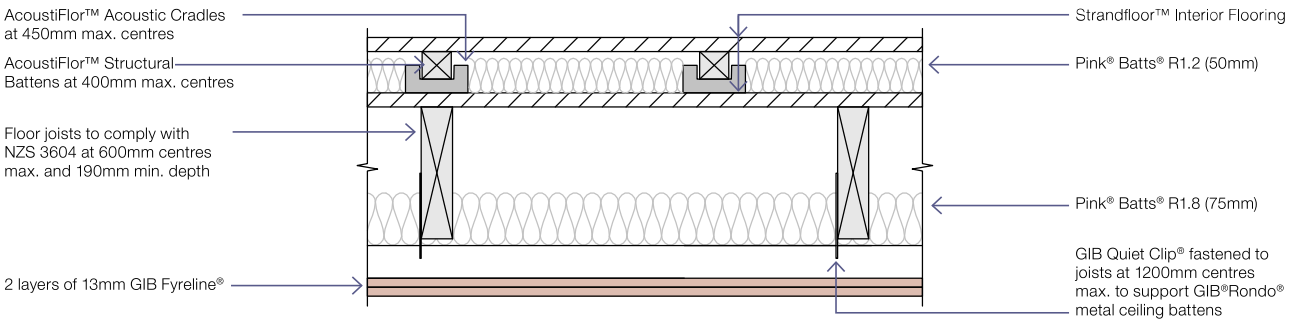


GNS021

Additional Timber Joist Floor/Ceiling Noise Control Systems

Issue Date December 2020

This release of three new noise control systems expands the range of intertenancy floor/ceiling systems within the GIB Noise Control® Systems literature.

The rising demand for cost-effective lightweight timber frame apartment buildings has prompted the development of these three new systems. The combination of hyJOIST® or Futurebuild® LVL joists and 19mm Ecoply® F11/F8 Flooring can form an integral part of the overall structural design. The inclusion of the floating floor provides a way to control impact noise in areas where hard flooring surfaces are required.

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

Floor/ceiling – engineered timber joists

Specification	Performance		Specifications	
GBDFA 60f	**STC**	65	**Lining**	2 x 13mm GIB Braceline® GIB Noiseline®
	Rw	65	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	55

FLOOR FRAMING

Use either hyJOIST® or Futurebuild® LVL joists designed for serviceability, not less than 240mm deep and spaced at 600mm centres maximum. Consult the joist manufacturer regarding construction of the solid blocking contained in the floor/ceiling to wall junctions.

ALTERNATIVE FLOOR FRAMING

Floor joists shall comply with NZS 3604, be spaced at 600mm centres maximum and have depth of 240mm minimum.

FLOORING

Install 19mm Ecoply® F11/F8 Flooring in accordance with Ecoply® Flooring Specification and Installation Guide. Adhesive, as well as screwing/nailing of flooring, will limit squeak and noise in floors. Sheets shall be fixed at right angles to the joists.

FLOATING FLOOR AND FLOORING VOID SOUND CONTROL INFILL

Space AcoustiFlor™ Acoustic Cradles at 450mm maximum centres on the bottom layer of 19mm Ecoply® F11/F8 Flooring. The AcoustiFlor™ Acoustic Cradles do not need to be aligned with the timber floor joists and are not to be fixed down to the bottom layer of 19mm Ecoply® F11/F8 Flooring.

Place the AcoustiFlor™ Structural Battens in the AcoustiFlor™ Acoustic Cradles. Space AcoustiFlor™ Structural Battens at 400mm centres maximum. Place 50mm thick sound control infill between AcoustiFlor™ Structural Battens. Minimum density 11.0 kg/m^3.

Laminex Strandfloor® Tongue & Groove flooring fixed at right angles to the AcoustiFlor™ Structural Battens. Sheets must be laid in a staggered pattern. The minimum length for a cut sheet is 800mm. A 5mm continuous bead of adhesive may be applied to AcoustiFlor™ Structural Battens prior to installation of sheets but is not mandatory.

Allow a 5mm minimum gap where sheet edges butt into external/internal walls. Fill gap with GIB Fire Soundseal® acoustic sealant.

In designated wet areas there is a need to seal the sheet joints and apply a waterproof membrane. If tiles are to be applied as a final finish, there may be a requirement to form one or more control joints.

GIB QUIET CLIP® AND BATTENS

The GIB Quiet Clip® shall be fastened to the joists at 1200mm centres maximum (and no less than 900mm centres) to support the GIB® Rondo® metal ceiling battens.

INSTALLING THE GIB® QUIET CLIP

Use 3 x 32mm x 8g GIB® Grabber® Self Tapping Wafer Head Screws. Insert the first screw into the middle rubber grommet, tighten enough to hold the GIB Quiet Clip® in place, adjust the clip to the correct height, insert the remaining two screws and tighten. Do not overtighten the screws to the point where grommet is crushed. The screws should be tightened enough to allow the flexibility to remain in the connection between the grommet and the timber joists.

CEILING VOID SOUND CONTROL INFILL

Place minimum 75mm thick sound control infill on top of the GIB® Rondo® metal ceiling battens. Minimum density 11.0 kg/m^3.

CEILING LINING

2 layers of 13mm GIB Braceline® GIB Noiseline® fixed at right angles to the metal battens.

Offset the joints of the outer layer by 600mm from those of the inner layer. All sheet end butt joints shall occur on the battens and are offset between first and second layers. Sheet joints are touch fitted.

FASTENING THE LINING

Fasteners

Inner layer: 32mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Outer layer: 41mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Fastener centres (both layers)

200mm centres along each batten and at 100mm centres along sheet end butt joints. Place fasteners no closer than 12mm to the sheet edges.

ACOUSTIC SEALANT

A bead of GIB Fire Soundseal® acoustic sealant is required around the ceiling perimeter.

WALL/CEILING JUNCTIONS

The internal angle between ceiling and walls must be protected by GIB-Cove® adhered with GIB-Cove® Bond, or boxed corners (square stopped) filled and taped in accordance with the publication entitled GIB® Site Guide.

JOINTING

All fastener heads and all sheet joints tape reinforced and stopped in accordance with the publication entitled GIB® Site Guide.

Floor/ceiling – engineered timber joists

Specification	Performance		Specifications	
GBDFA 60f	**STC**	65	**Lining**	2 x 13mm GIB Braceline® GIB Noiseline®
	Rw	65	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	55

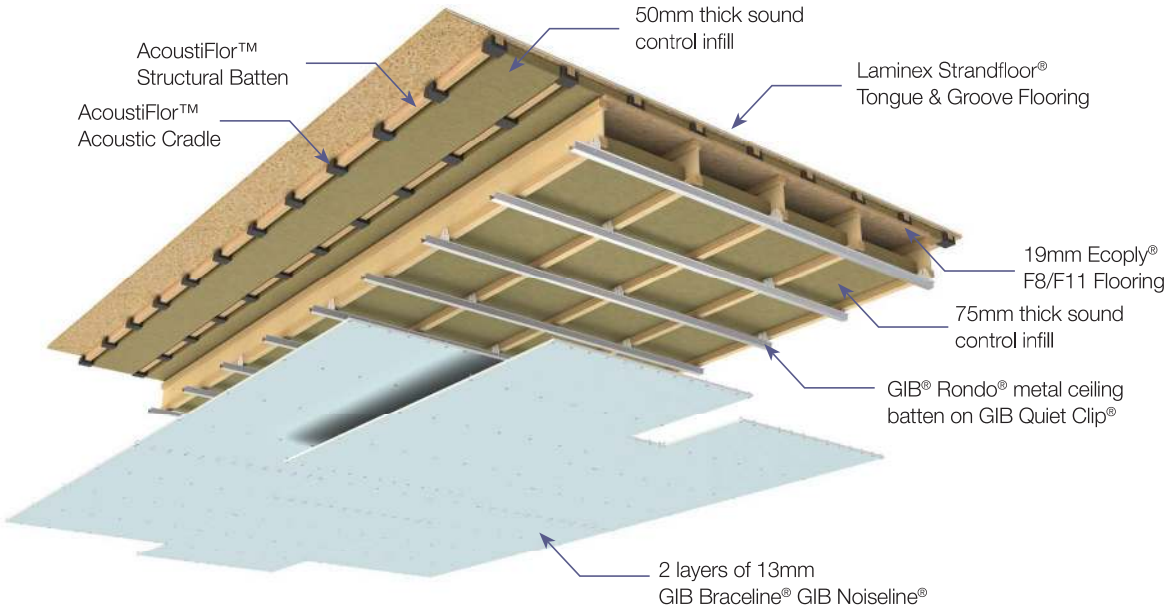
SUPPLEMENTARY MATERIAL

For additional information covering AcoustiFlor™ Acoustic Cradle and AcoustiFlor™ Structural Batten installation, refer to the Batten & Cradle™ AcoustiFlor™ System Specification and Installation Guide.

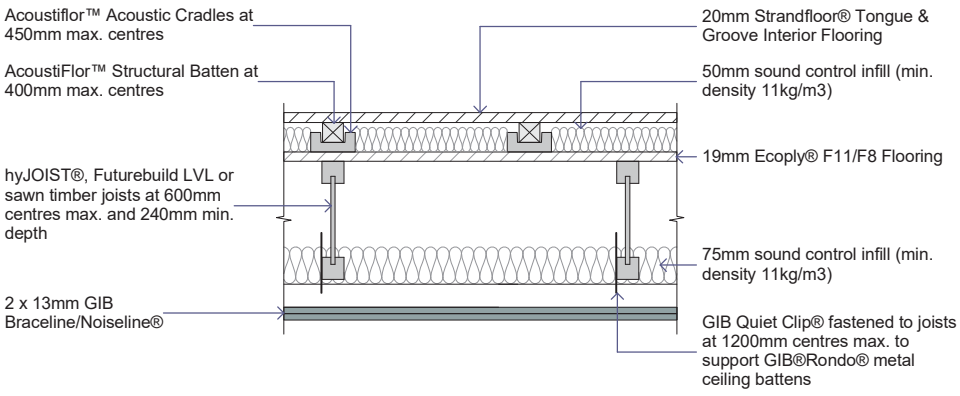
For additional information covering general and wet area installations of Laminex Strandfloor® Tongue & Groove or Laminex Strandfloor® H3.1 Tongue & Groove flooring, refer to the Laminex Strandfloor® Technical Manual.

***Impact Insulation Class (IIC)**

A performance of IIC 55 is achieved with a bare floor. Adding acoustic floor coverings may improve the IIC achieved by the system. For more information contact your acoustic engineer for specific advice.



CONSTRUCTION DETAIL



GNS025

Floor/ceiling – engineered timber joists

Specification	Performance		Specifications	
GBDFA 60g	**STC**	66	**Lining**	2 x 13mm GIB Braceline® GIB Noiseline®
	Rw	66	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	57

FLOOR FRAMING

Use either hyJOIST® or Futurebuild® LVL joists designed for serviceability, not less than 240mm deep and spaced at 600mm centres maximum. Consult the joist manufacturer regarding construction of the solid blocking contained in the floor/ceiling to wall junctions.

ALTERNATIVE FLOOR FRAMING

Floor joists shall comply with NZS 3604, be spaced at 600mm centres maximum and have depth of 240mm minimum.

FLOORING

Install 19mm Ecoply® F11/F8 Flooring in accordance with Ecoply® Flooring Specification and Installation Guide. Adhesive, as well as screwing/nailing of flooring, will limit squeak and noise in floors. Sheets shall be fixed at right angles to the joists.

FLOATING FLOOR AND FLOORING VOID SOUND CONTROL INFILL

Space AcoustiFlor™ Acoustic Cradles at 450mm maximum centres on the bottom layer of 19mm Ecoply® F11/F8 Flooring. The AcoustiFlor™ Acoustic Cradles do not need to be aligned with the timber floor joists and are not to be fixed down to the bottom layer of 19mm Ecoply® F11/F8 Flooring.

Place the AcoustiFlor™ Structural Battens in the AcoustiFlor™ Acoustic Cradles. Space AcoustiFlor™ Structural Battens at 400mm centres maximum. Place 50mm thick sound control infill between AcoustiFlor™ Structural Battens. Minimum density 11.0 kg/m^3.

20mm Kopine® Tongue & Groove12 flooring fixed at right angles to the AcoustiFlor™ Structural Battens. Sheets must be laid in a staggered pattern. The minimum length for a cut sheet is 800mm. A 5mm continuous bead of adhesive may be applied to AcoustiFlor™ Structural Battens prior to installation of sheets but is not mandatory.

Allow a 5mm minimum gap where sheet edges butt into external/internal walls. Fill gap with GIB Fire Soundseal® acoustic sealant.

In designated wet areas there is a need to seal the sheet joints and apply a waterproof membrane. If tiles are to be applied as a final finish, there may be a requirement to form one or more control joints.

GIB QUIET CLIP® AND BATTENS

The GIB Quiet Clip® shall be fastened to the joists at 1200mm centres maximum (and no less than 900mm centres) to support the GIB® Rondo® metal ceiling battens.

INSTALLING THE GIB® QUIET CLIP

Use 3 x 32mm x 8g GIB® Grabber® Self Tapping Wafer Head Screws. Insert the first screw into the middle rubber grommet, tighten enough to hold the GIB Quiet Clip® in place, adjust the clip to the correct height, insert the remaining two screws and tighten. Do not overtighten the screws to the point where grommet is crushed. The screws should be tightened enough to allow the flexibility to remain in the connection between the grommet and the timber joists.

CEILING VOID SOUND CONTROL INFILL

Place minimum 75mm thick sound control infill on top of the GIB® Rondo® metal ceiling battens. Minimum density 11.0 kg/m^3.

CEILING LINING

2 layers of 13mm GIB Braceline® GIB Noiseline® fixed at right angles to the metal battens.

Offset the joints of the outer layer by 600mm from those of the inner layer. All sheet end butt joints shall occur on the battens and are offset between first and second layers. Sheet joints are touch fitted.

FASTENING THE LINING

Fasteners

Inner layer: 32mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Outer layer: 41mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Fastener centres (both layers)

200mm centres along each batten and at 100mm centres along sheet end butt joints. Place fasteners no closer than 12mm to the sheet edges.

ACOUSTIC SEALANT

A bead of GIB Fire Soundseal® acoustic sealant is required around the ceiling perimeter.

WALL/CEILING JUNCTIONS

The internal angle between ceiling and walls must be protected by GIB-Cove® adhered with GIB-Cove® Bond, or boxed corners (square stopped) filled and taped in accordance with the publication entitled GIB® Site Guide.

JOINTING

All fastener heads and all sheet joints tape reinforced and stopped in accordance with the publication entitled GIB® Site Guide.

Floor/ceiling – engineered timber joists

Specification	Performance		Specifications	
GBDFA 60g	**STC**	66	**Lining**	2 x 13mm GIB Braceline® GIB Noiseline®
	Rw	66	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	57

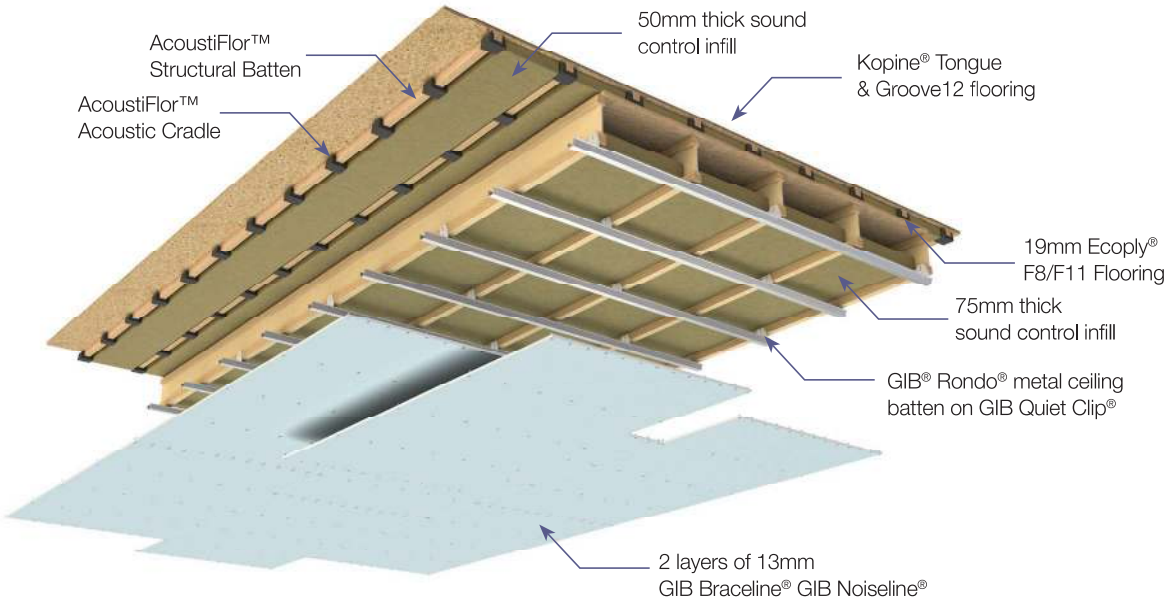
SUPPLEMENTARY MATERIAL

For additional information covering AcoustiFlor™ Acoustic Cradle and AcoustiFlor™ Structural Batten installation, refer to the Batten & Cradle™ AcoustiFlor™ System Specification and Installation Guide.

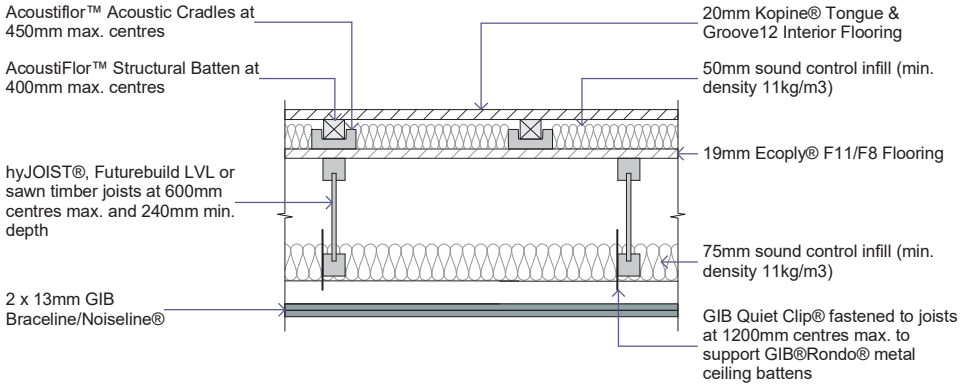
For additional information covering general and wet area installations of Kopine® Tongue & Groove12 flooring, refer to the Kopine® Flooring Systems Installation Guide and Technical Specifications.

***Impact Insulation Class (IIC)**

A performance of IIC 57 is achieved with a bare floor. Adding acoustic floor coverings may improve the IIC achieved by the system. For more information contact your acoustic engineer for specific advice.



CONSTRUCTION DETAIL



GNS026

Floor/ceiling – engineered timber joists

Specification	Performance		Specifications	
GBDFA 60h	**STC**	65	**Lining**	2 x 13mm GIB Fyreline®
	Rw	66	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	57

FLOOR FRAMING

Use either hyJOIST® or Futurebuild® LVL joists designed for serviceability, not less than 240mm deep and spaced at 600mm centres maximum. Consult the joist manufacturer regarding construction of the solid blocking contained in the floor/ceiling to wall junctions.

ALTERNATIVE FLOOR FRAMING

Floor joists shall comply with NZS 3604, be spaced at 600mm centres maximum and have depth of 240mm minimum.

FLOORING

Install 19mm Ecoply® F11/F8 Flooring in accordance with Ecoply® Flooring Specification and Installation Guide. Adhesive, as well as screwing/nailing of flooring, will limit squeak and noise in floors. Sheets shall be fixed at right angles to the joists.

FLOATING FLOOR AND FLOORING VOID SOUND CONTROL INFILL

Space AcoustiFlor™ Acoustic Cradles at 450mm maximum centres on the bottom layer of 19mm Ecoply® F11/F8 Flooring. The AcoustiFlor™ Acoustic Cradles do not need to be aligned with the timber floor joists and are not to be fixed down to the bottom layer of 19mm Ecoply® F11/F8 Flooring.

Place the AcoustiFlor™ Structural Battens in the AcoustiFlor™ Acoustic Cradles. Space AcoustiFlor™ Structural Battens at 450mm centres maximum. Place 50mm thick sound control infill between AcoustiFlor™ Structural Battens. Minimum density 11.0 kg/m^3.

19mm James Hardie Secura Interior Flooring fixed at right angles to the AcoustiFlor™ Structural Battens. Sheets must be laid in a staggered pattern. The minimum length for a cut sheet is 900mm. Ensure the sheets are laid the correct way down depending on final finish i.e. tiles or vinyl. A 6mm bead continuous bead of adhesive may be applied to AcoustiFlor™ Structural Battens prior to installation of sheets but is not mandatory.

Allow a 5mm minimum gap where sheet edges butt into external/internal walls. Fill gap with GIB Fire Soundseal® acoustic sealant.

In designated wet areas there is a need to seal the sheet joints and apply a waterproof membrane. If tiles are to be applied as a final finish, there may be a requirement to form one or more control joints.

GIB QUIET CLIP® AND BATTENS

The GIB Quiet Clip® shall be fastened to the joists at 1200mm centres maximum (and no less than 900mm centres) to support the GIB® Rondo® metal ceiling battens.

INSTALLING THE GIB® QUIET CLIP

Use 3 x 32mm x 8g GIB® Grabber® Self Tapping Wafer Head Screws. Insert the first screw into the middle rubber grommet, tighten enough to hold the GIB Quiet Clip® in place, adjust the clip to the correct height, insert the remaining two screws and tighten. Do not overtighten the screws to the point where grommet is crushed. The screws should be tightened enough to allow the flexibility to remain in the connection between the grommet and the timber joists.

CEILING VOID SOUND CONTROL INFILL

Place minimum 75mm thick sound control infill on top of the GIB® Rondo® metal ceiling battens. Minimum density 11.0 kg/m^3.

CEILING LINING

2 layers of 13mm GIB Fyreline® fixed at right angles to the metal battens.

Offset the joints of the outer layer by 600mm from those of the inner layer. All sheet end butt joints shall occur on the battens and are offset between first and second layers. Sheet joints are touch fitted.

FASTENING THE LINING

Fasteners

Inner layer: 32mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Outer layer: 41mm x 6g GIB® Grabber® Self Tapping Drywall Screws.

Fastener centres (both layers)

200mm centres along each batten and at 100mm centres along sheet end butt joints. Place fasteners no closer than 12mm to the sheet edges.

ACOUSTIC SEALANT

A bead of GIB Fire Soundseal® acoustic sealant is required around the ceiling perimeter.

WALL/CEILING JUNCTIONS

The internal angle between ceiling and walls must be protected by GIB-Cove® adhered with GIB-Cove® Bond, or boxed corners (square stopped) filled and taped in accordance with the publication entitled GIB® Site Guide.

JOINTING

All fastener heads and all sheet joints tape reinforced and stopped in accordance with the publication entitled GIB® Site Guide.

Floor/ceiling – engineered timber joists

Specification	Performance		Specifications	
GBDFA 60h	**STC**	65	**Lining**	2 x 13mm GIB Fyreline®
	Rw	66	**LB/NLB**	Load bearing
	FRR	60/60/60	**IIC***	57

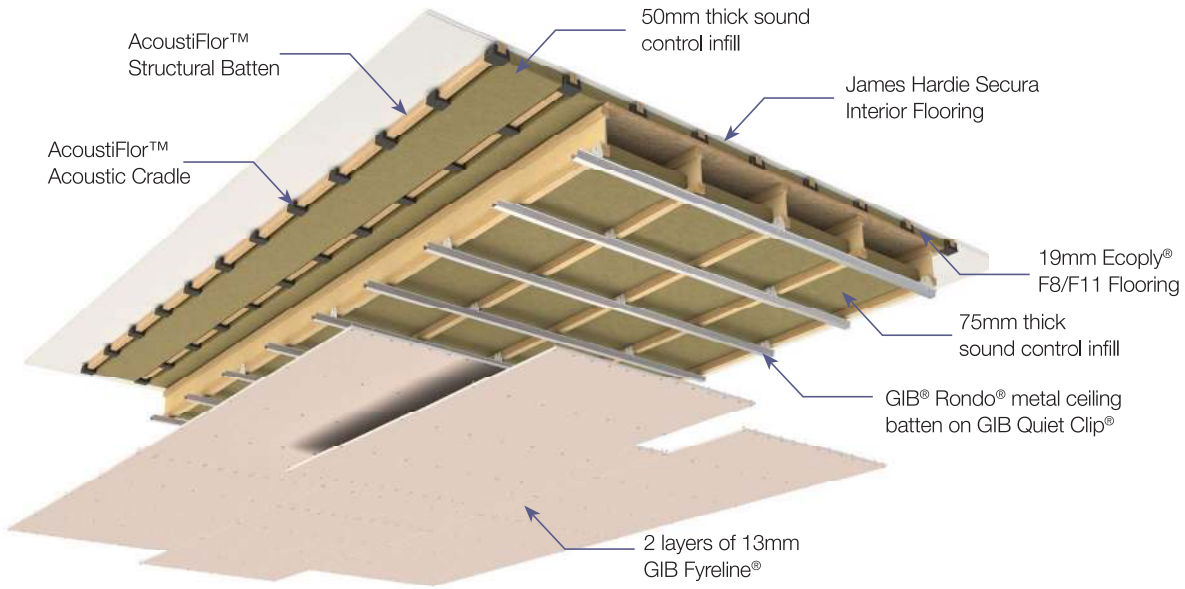
SUPPLEMENTARY MATERIAL

For additional information covering AcoustiFlor™ Acoustic Cradle and AcoustiFlor™ Structural Batten installation, refer to the Batten & Cradle™ AcoustiFlor™ System Specification and Installation Guide.

For additional information covering general and wet area installations of James Hardie Secura Interior Flooring, refer to the James Hardie Secura Interior Flooring Installation Manual.

***Impact Insulation Class (IIC)**

A performance of IIC 57 is achieved with a bare floor. Adding acoustic floor coverings may improve the IIC achieved by the system. For more information contact your acoustic engineer for specific advice.



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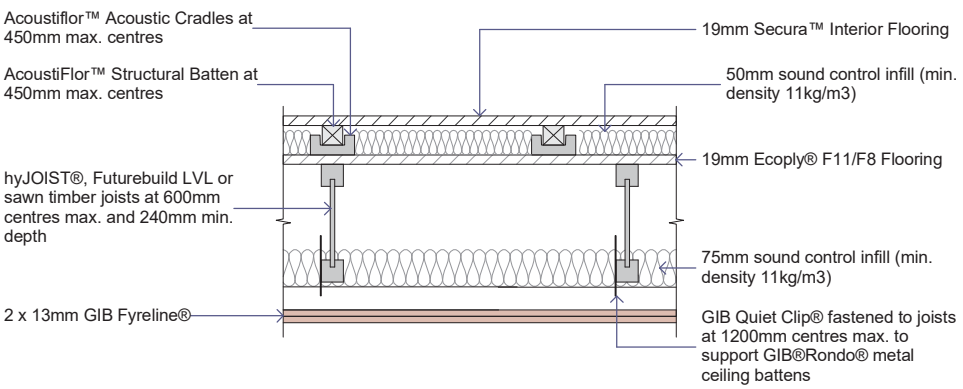

GNS027