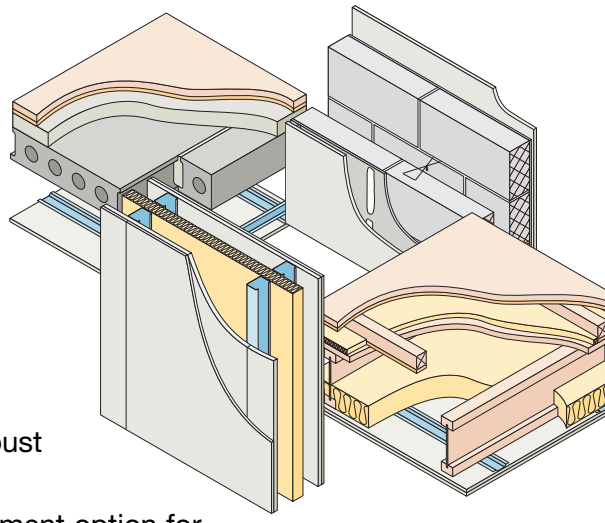
April 2018 Update Pack



Dear Colleague,

Thank you for subscribing to receive updates to the Part E Robust Details Handbook.

In this update pack, we have included a new floating floor treatment option for the generic timber separating floors E-FT-1, E-FT-2 and E-FT-3 and the steel joisted floor E-FS-2. Significantly, Cellecta's HiDECK Structural system overcomes the thermal resistance issues of the standard FFT1 to allow underfloor heating to now be used with these floors.

Also of note is that the horizontal cavity stop used behind cladding systems on E-FC-18 RC Frame floor, has now been approved and specified in a way that aids drainage of the cavity; and E-FC-1 now has the option to include a membrane below the screed layer should this be required.

Other amendments include the options to Use Cellecta's MICRO 15 and MICRO 50 in place of mineral wool on a number of timber and steel joisted floors; and an updating of product names on Thermal Economics' floors.

Please update your January 2018, 4th Edition Handbook as follows:

1. Remove and replace **just page 11/12** of the Introduction.
2. Remove and replace **all pages** of E-WS-5.
3. Remove and replace **all pages** of E-FC-1; E-FC-4; E-FC-12 and E-FC-14.
4. Remove and replace **just page 1/2** of E-FC-18.
5. Remove and replace **all pages** of E-FT-1; E-FT-2 and E-FT-3.
6. Remove and replace **just page 1/2** and **page 5/6** of E-FT-5.
7. Remove and replace **all pages** of E-FS-2.
8. Remove and replace **all pages** of Appendix A3.

Yours sincerely

John Thompson

Chief Executive,
Robust Details Limited

Changes to the fourth edition following April 2018 update

Section	Page	Amendment
Introduction		
Table 7	12	Cellecta HiDECK Structural added.
Separating Wall – Steel		
E-WS-5		
Diagrams 1- 4	2-5	Diagrams reordered by junction type rather than by external treatment. External cladding option redefined.
Separating Floor – Concrete		
E-FC-1		
Direct applied screed	1	Direct applied screed box added referencing under-screed membrane.
Checklist	6	Item 5 revised to include reference to under-screed membrane.
E-FC-4		
All	1-6	Resilient layer descriptor updated to reflect change in product name.
E-FC-12		
All	1-6	Resilient layer descriptor updated to reflect change in product name.
E-FC-14		
All	1-6	Resilient layer and flanking strip descriptors updated to reflect change in product names.
E-FC-18		
Under-screed resilient layers	1	Thermal Economics resilient layer and flanking strip descriptors updated to reflect change in product names.
Diagram 1	2	External cladding option redefined. Partial cavity closer option added.

Section	Page	Amendment
Separating Floor – Timber		
E-FT-1		
Isometric	1	Cellecta MICRO 50 option added.
DO box	1	Min. quilt thickness removed from point 1.
Diagram 6	5	Cellecta MICRO 15 option added to FFT1. Reference added to Cellecta HiDECK in Appendix A3.
Checklist	6	Item 2 & 6 amended to “specified” quilt.
E-FT-2		
Isometric	1	Cellecta MICRO 50 option added.
DO box	1	Min. quilt thickness removed from point 1.
Diagram 6	5	Reference added to Cellecta HiDECK in Appendix A3.
Checklist	6	Item 2 & 7 amended to “specified” quilt.
E-FT-3		
Isometric	1	Cellecta MICRO 50 option added.
DO box	1	Min. quilt thickness removed from point 2.
Diagram 10	7	Cellecta MICRO 15 option added to FFT1. Reference added to Cellecta HiDECK in Appendix A3.
Checklist	8	Item 4 & 8 amended to “specified” quilt.
E-FT-5		
Isometric	1	Cellecta MICRO 50 option added.
Checklist	6	Item 7 amended to “specified” quilt.
Separating Floor – Steel		
E-FS-2		
Isometric	1	Cellecta MICRO 50 option added.
DO box	1	Min. quilt thickness removed from point 1.
Diagram 3	3	Cellecta MICRO 50 option added.
Diagram 6	5	Cellecta MICRO 15 option added to FFT1. Reference added to Cellecta HiDECK in Appendix A3.
Checklist	6	Item 2 & 6 amended to “specified” quilt.
Appendix A3		
Content	1	Cellecta HiDECK Structural floor board floating floor treatment added.
Cellecta HiDECK Structural floor board	4	New proprietary floating floor treatment system added.

Table 6b – Robust Detail separating floors which can be used together with the proprietary flanking constructions contained in Appendix A2

		BRIDGESTOP® system	Smartroof system	Kingspan TEK	Prestoplan PresPeak 60	Wall Cap RDA2	RoofSpace I-Roof	Space4 system
Concrete floors	E-FC-1					✔		
	E-FC-2							
	E-FC-4					✔		
	E-FC-5					✔		
	E-FC-6					✔		
	E-FC-7					✔		
	E-FC-8					✔		
	E-FC-9					✔		
	E-FC-10					✔ see note 1		
	E-FC-11					✔		
	E-FC-12					✔		
	E-FC-13					✔		
	E-FC-14					✔		
	E-FC-15					✔		
	E-FC-16					✔		
	E-FC-17					✔		
	E-FC-18							
Timber floors	E-FT-1					✔		
	E-FT-2					✔		
	E-FT-3					✔		
	E-FT-4					✔		
	E-FT-5					✔		
	E-FT-6					✔		
	E-FT-7					✔		
	E-FT-8					✔		
Steel-concrete and steel floors	E-FS-1							
	E-FS-2					✔		
	E-FS-3					✔		

Key

1 Applies only to loadbearing masonry constructions.

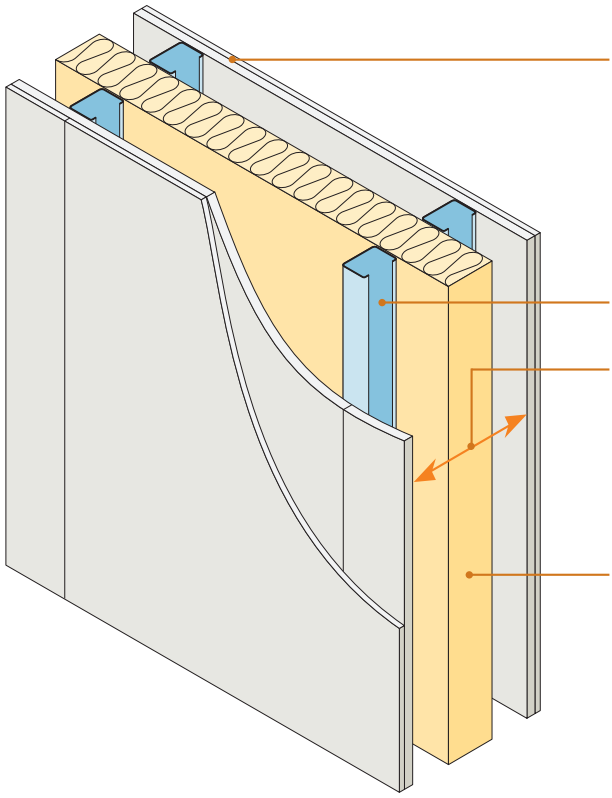
Table 7 – Robust Detail separating floors which can be used together with alternative products contained in Appendix A3

		British Gypsum GypFloor	Insumate insulation tray	Cellecta HiDECK Structural
Concrete floors	E-FC-1	✔		
	E-FC-2	✔		
	E-FC-4			
	E-FC-5			
	E-FC-6			
	E-FC-7	✔		
	E-FC-8			
	E-FC-9			
	E-FC-10			
	E-FC-11			
	E-FC-12			
	E-FC-13			
	E-FC-14			
	E-FC-15			
	E-FC-16			
	E-FC-17			
	E-FC-18			
Timber floors	E-FT-1		✔	✔
	E-FT-2		✔	✔
	E-FT-3		✔	✔
	E-FT-4			
	E-FT-5			
	E-FT-6			
	E-FT-7		✔	
	E-FT-8		✔	
Steel-concrete and steel floors	E-FS-1	✔		
	E-FS-2			✔
	E-FS-3			

Separating Wall – Steel Frame

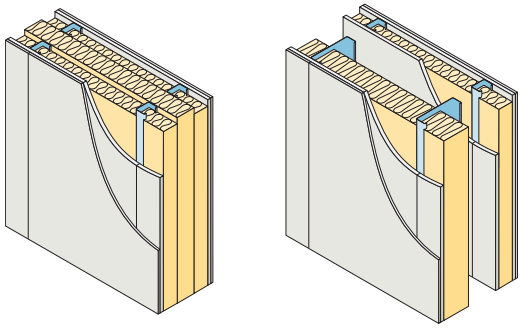
E-WS-5

Twin metal frames ■
Use with reinforced concrete frame construction only ■
Concrete slabs with flat soffits only - no profiled decking ■



Wall lining	- 2 or more layers of gypsum-based board (minimum total nominal mass per unit area 20 kg/m^2) both sides - all joints staggered
Steel frame	60mm (min) studs both sides
Wall width	230mm (min) between inner faces of wall linings, or190mm (min) where service zones are used (see Section 6)
Absorbent material	One layer 75mm (min) unfaced mineral wool batts (density 10-40 kg/m^3)
External (flanking) wall	See Sections 1 to 3

Alternative higher-performance wall constructions (see Section 12)



Alternative external (flanking) wall construction

Storey height glazing units are an acceptable alternative to the cavity walls illustrated:

- glazing units should not be continuous between storeys
- mullion or transom supports/framing should not be continuous between dwellings
- the sound insulation performance is improved where the junction between the separating wall and external (flanking) wall occurs at a concrete column position

DO

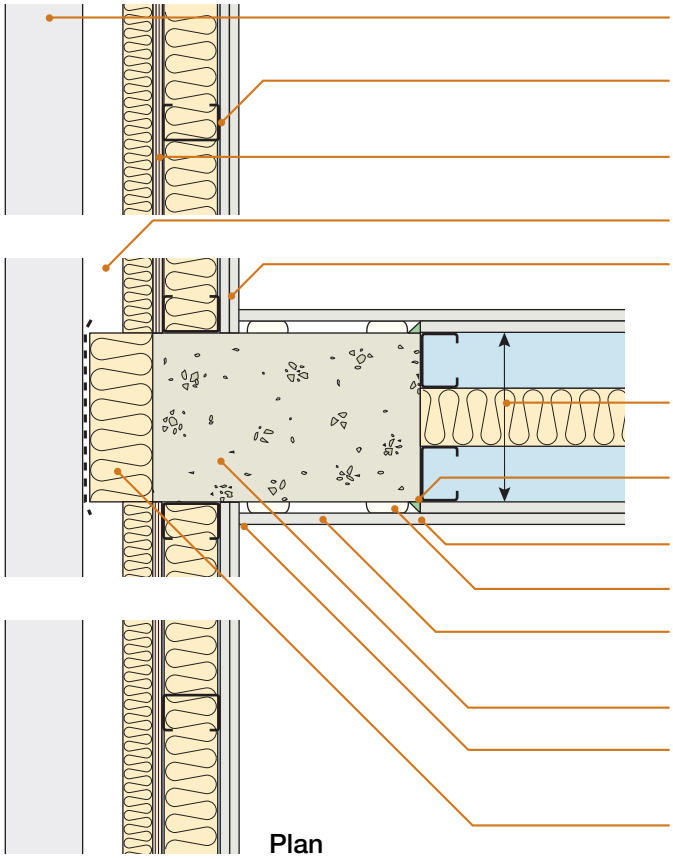
- Keep wall linings at least 230mm apart, or 190mm (min) where service zones are used (see Section 6)
- Ensure the batts cover whole wall area and are fitted together correctly and not tightly compressed between twin frames
- Ensure that all cavity stops/closers are flexible or are fixed to one frame only
- Make sure there is no connection between the two frames except where ties are necessary for structural reasons
- Stagger joints in wall linings to avoid air paths
- Seal all joints in outer layer with tape or caulk with sealant
- Refer to Appendix A

Sheathing

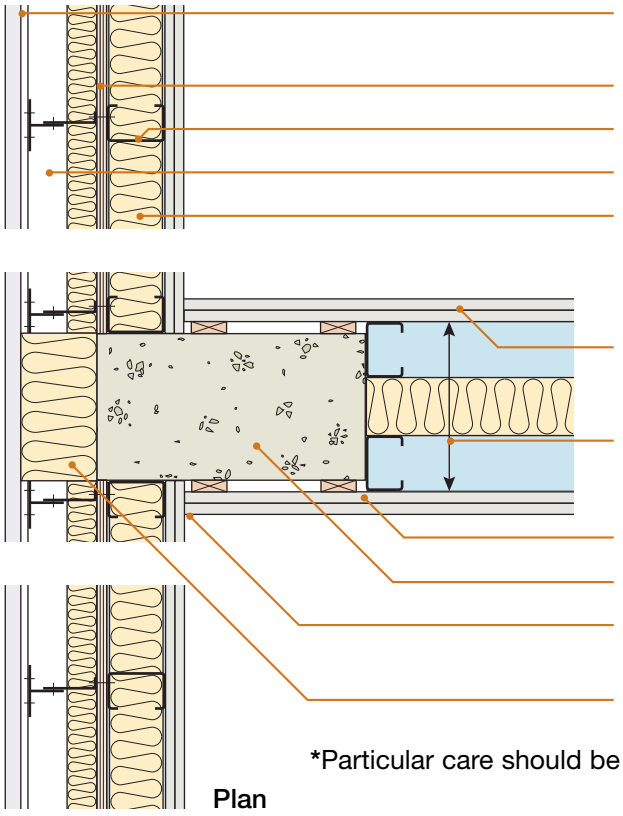
Where required for structural or security reasons, it is permissible to apply sheathing board to one frame of the separating wall (see Section 6)

1. External (flanking) wall junction – at concrete column position

1.1 Masonry or precast external treatment



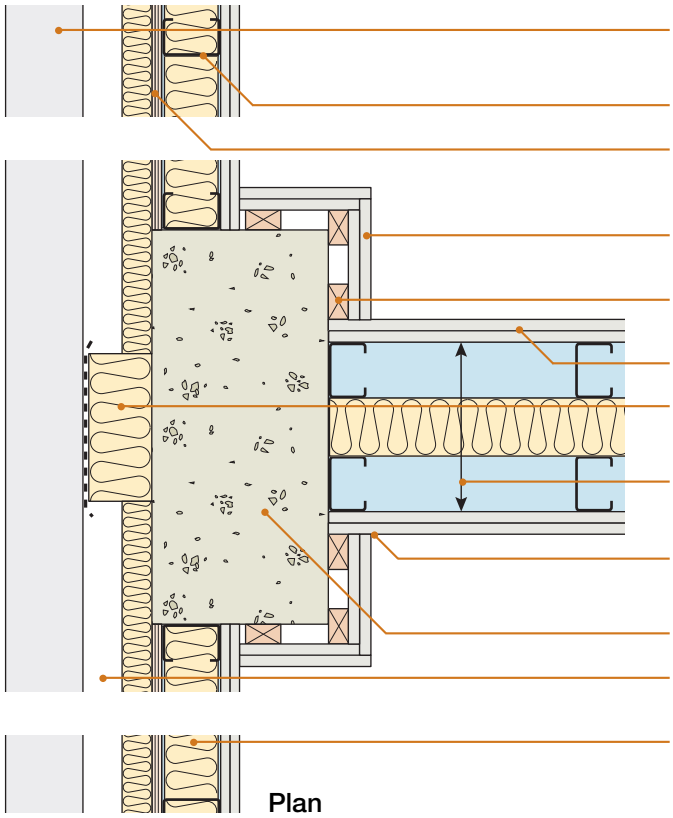
1.2 Lightweight cladding external treatment



*Particular care should be taken in respect of Buiding Regulations Part B Fire

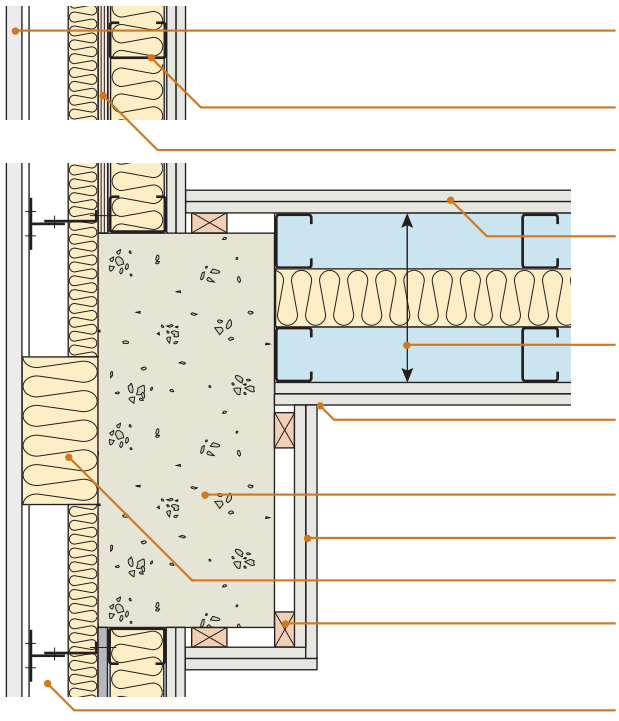
2. External (flanking) wall junction – at large concrete column (aligned to wall or offset) or at shear wall

2.1 Masonry or precast external treatment



Plan

2.2 Lightweight cladding external treatment

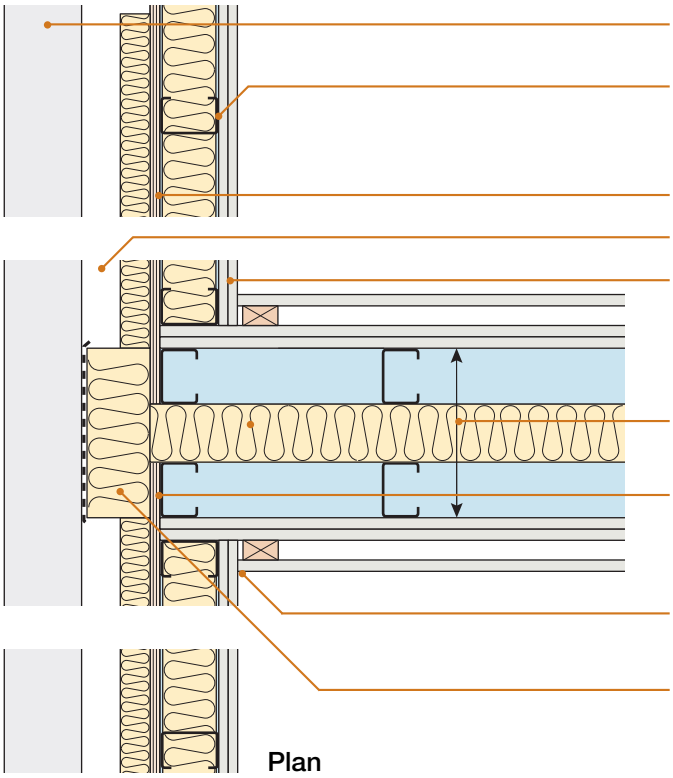


Plan

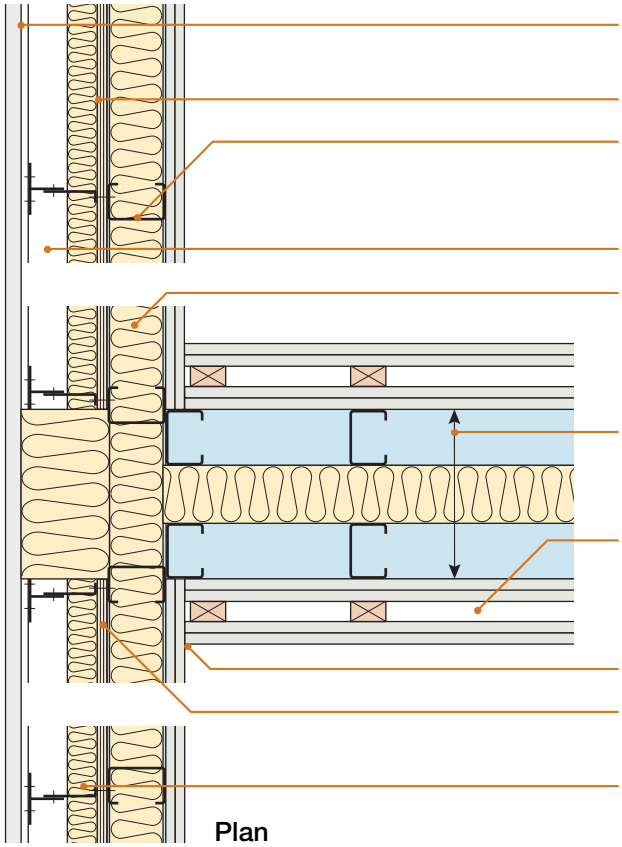
*Particular care should be taken in respect of Buiding Regulations Part B Fire

3. External (flanking) wall junction – without concrete column

3.1 Masonry or precast external treatment



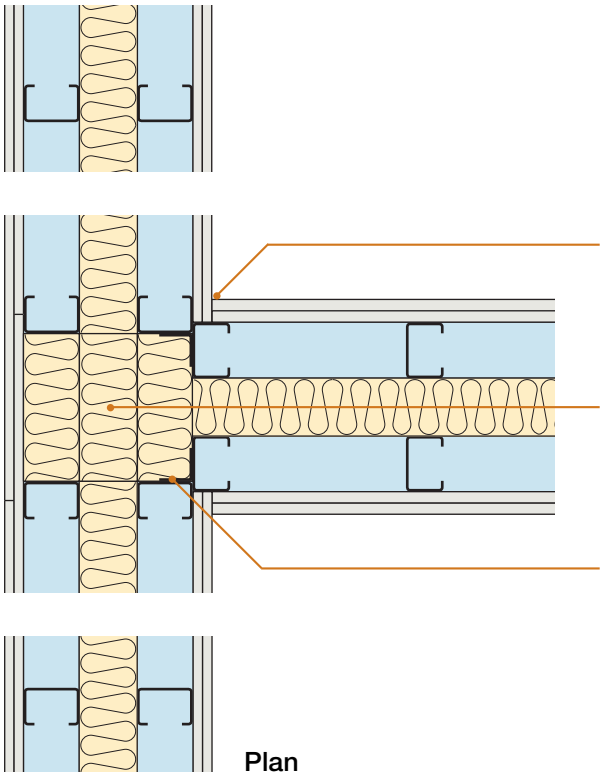
3.2 Lightweight cladding external treatment



*Particular care should be taken in respect of Buiding Regulations Part B Fire

4. Separating wall internal junctions

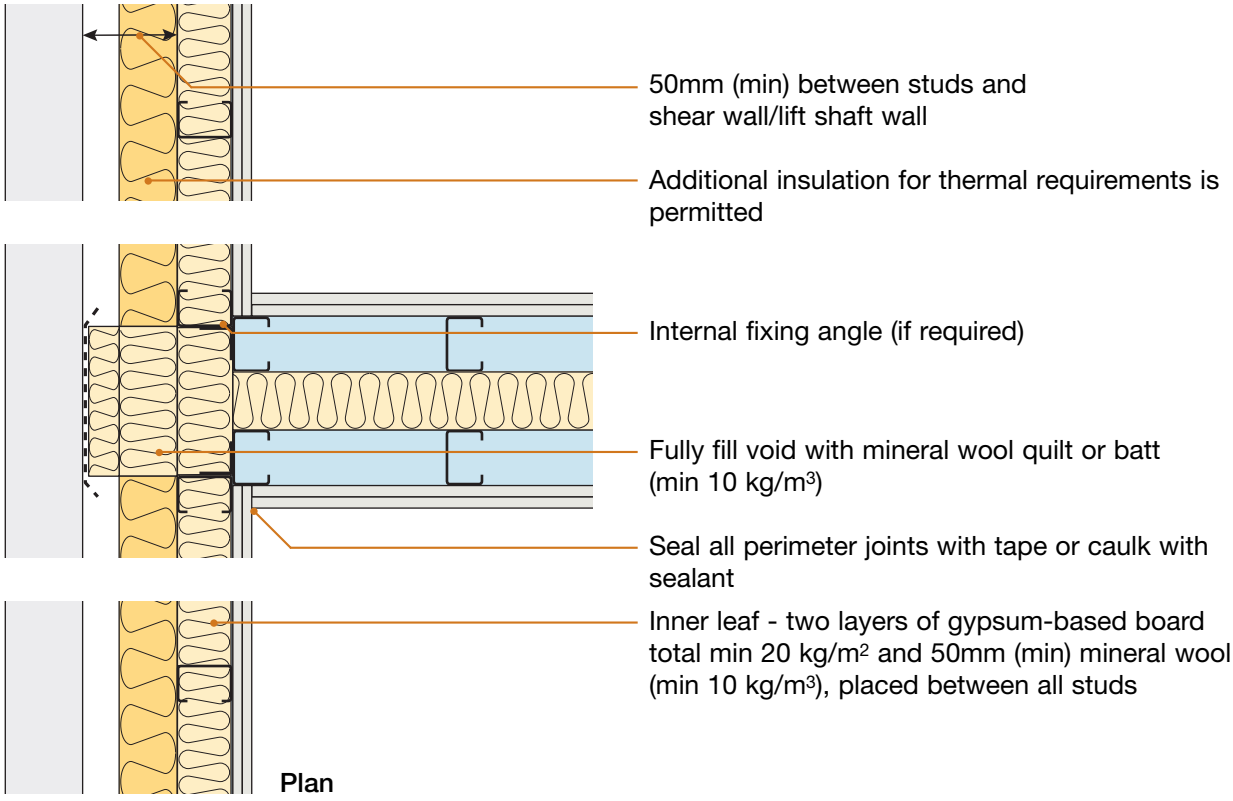
4.1 Where separating wall meets separating wall



Plan

Ensure studs, top and bottom rails or gypsum boards do not bridge between the twin frames

4.2 Where separating wall meets lift shaft wall or other such structure

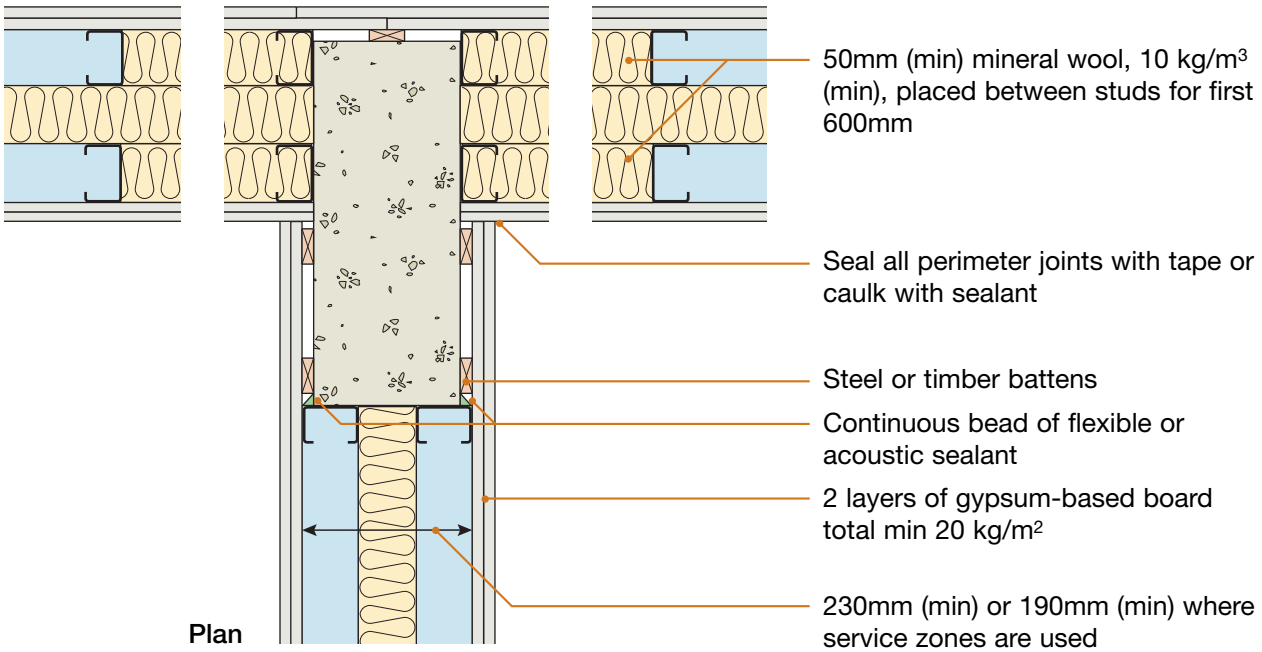


Plan

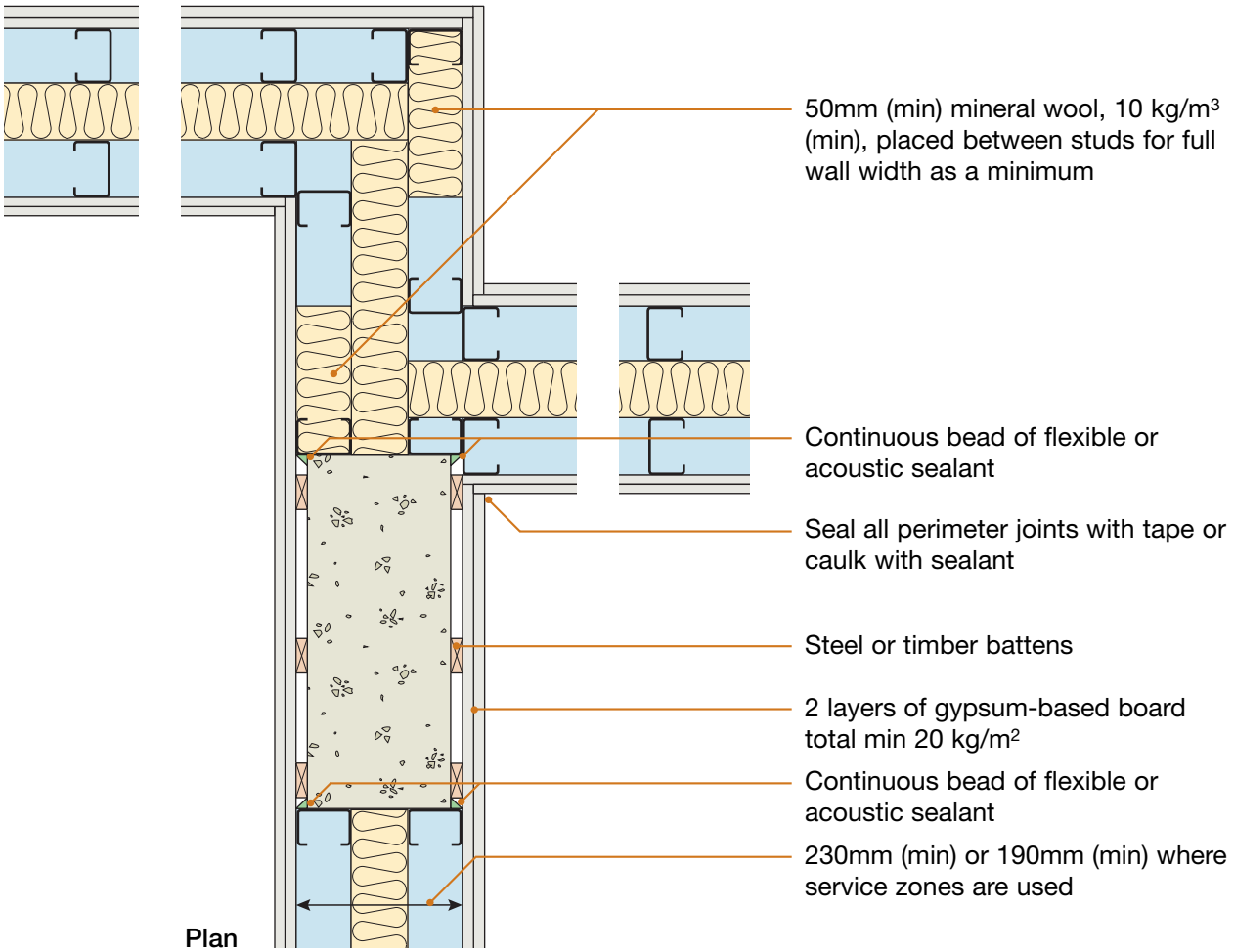
Ensure studs, top and bottom rails or gypsum boards do not bridge between the twin frames

5. Separating wall to separating wall junction with column/shear wall

5.1 T-junction at column or shear wall



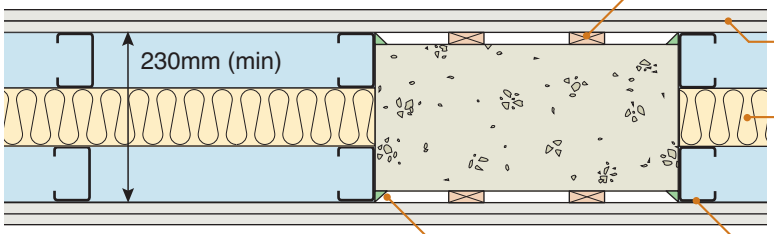
5.2 Junction offset from column or shear wall



Ensure studs, top and bottom rails or gypsum boards do not bridge between the twin frames

6. Service zone and wall options for in-line concrete columns

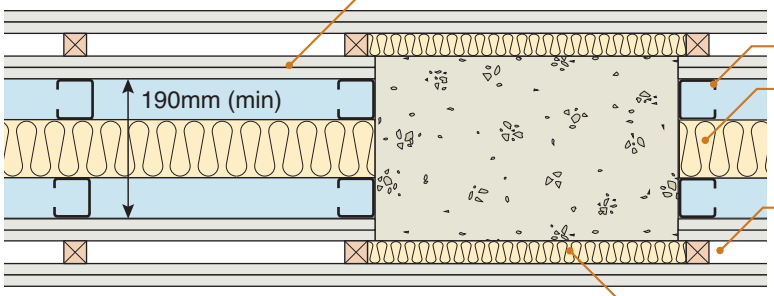
Option A



Plan

- Steel or timber battens
- 2 layers of gypsum-based board total min 20 kg/m²
- 75mm (min) slab/batt insulation (10-40 kg/m³)
- 60mm (min) metal studs
- Continuous bead of flexible or acoustic sealant to all four junctions

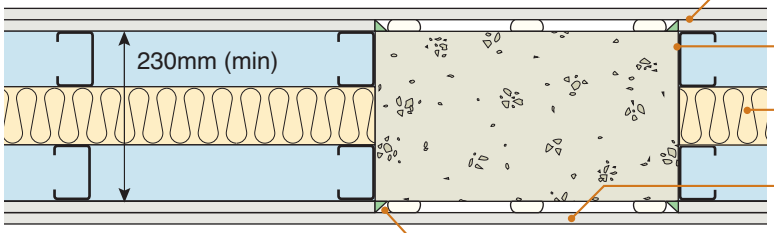
Option B



Plan

- 2 layers of gypsum-based board total min 20 kg/m²
- 60mm (min) metal studs
- 75mm (min) slab/batt insulation (10-40 kg/m³)
- Service void using min 25mm battens with 2 layers of gypsum-based board combined 20 kg/m²
- Service zone bay at column filled with 25mm mineral wool insulation min 10 kg/m³

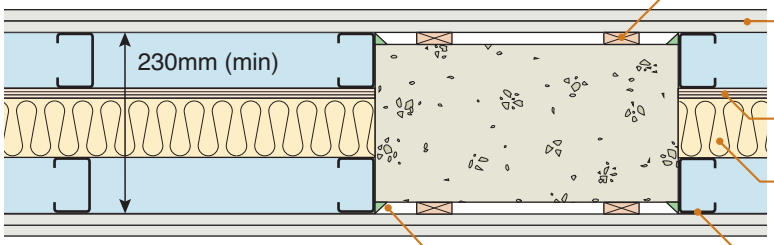
Option C



Plan

- 2 layers of gypsum-based board total min 20 kg/m²
- 60mm (min) metal studs
- 75mm (min) slab/batt insulation (10-40 kg/m³)
- 1 layer of gypsum-based board min 12 kg/m² on dabs across face of insitu column
- Continuous bead of flexible or acoustic sealant to all four junctions

Option D

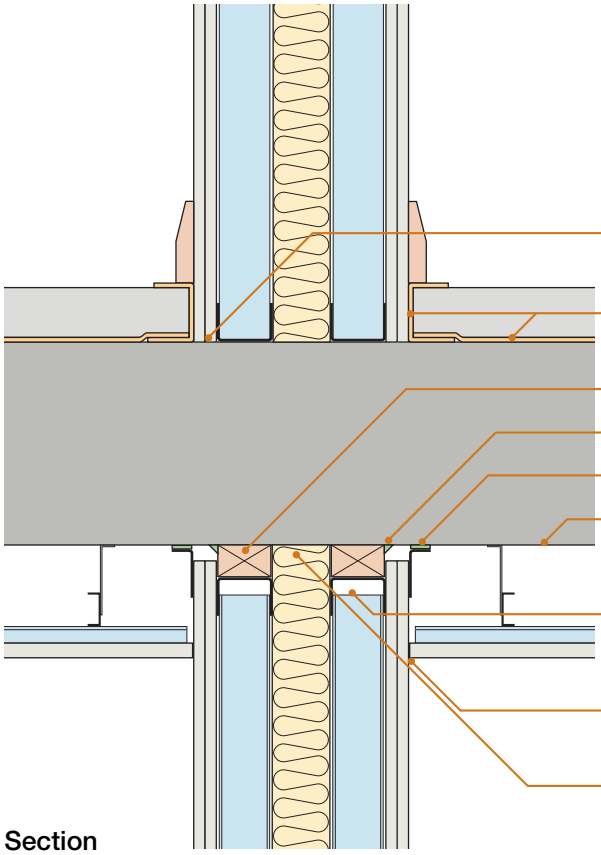


Plan

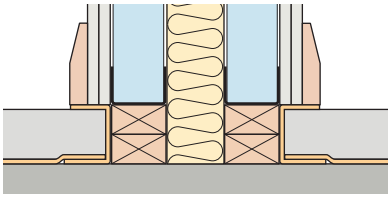
- Steel or timber battens
- 2 layers of gypsum-based board total min 20 kg/m²
- Sheathing to one leaf only
- 75mm (min) slab/batt insulation (10-40 kg/m³)
- 60mm (min) metal studs
- Continuous bead of flexible or acoustic sealant to all four junctions

Ensure studs, top and bottom rails or gypsum boards do not bridge between the twin frames

7. Separating floor junction – in-situ concrete floor E-FC-18



Alternative detail with timber sole plates



Where specified within the proprietary drywall system, apply additional sealing at this position

Flanking strip and resilient layer to isolate screed from metal frame/lining and concrete floor

Timber batten

Continuous bead of flexible sealant

Steel angle to seal void

Insitu slab to have flat soffit – profiled-deck permanent shutter must not be used

Junction to allow for deflection of slab where required

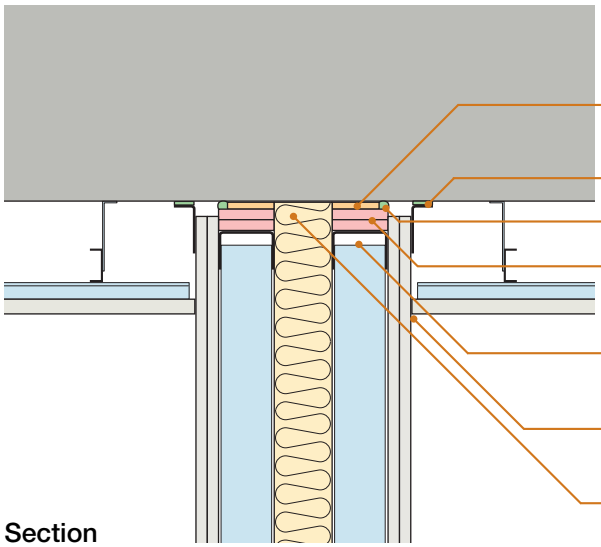
Seal all perimeter joints with tape or caulk with sealant

Quilt must be taken up to underside of slab, no gaps to remain

Section

An alternative deflection head detail is shown below

8. Slab junction (with alternative deflection head detail)



20mm mineral fibre or 5mm foamed polyethylene resilient strip

Steel angle to seal void

Flexible or acoustic sealant

Gypsum board packers

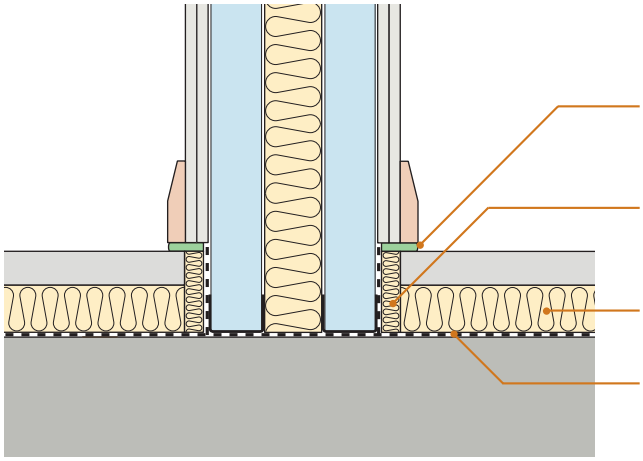
Junction to allow for deflection of slab where required

Seal all perimeter joints with tape or caulk with sealant

Quilt must be taken up to underside of slab, no gaps to remain

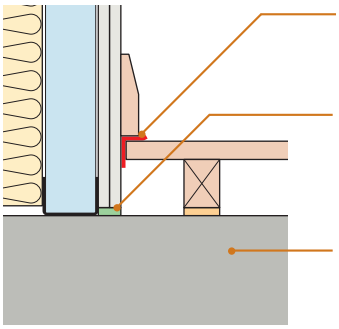
Section

9. Ground floor junction

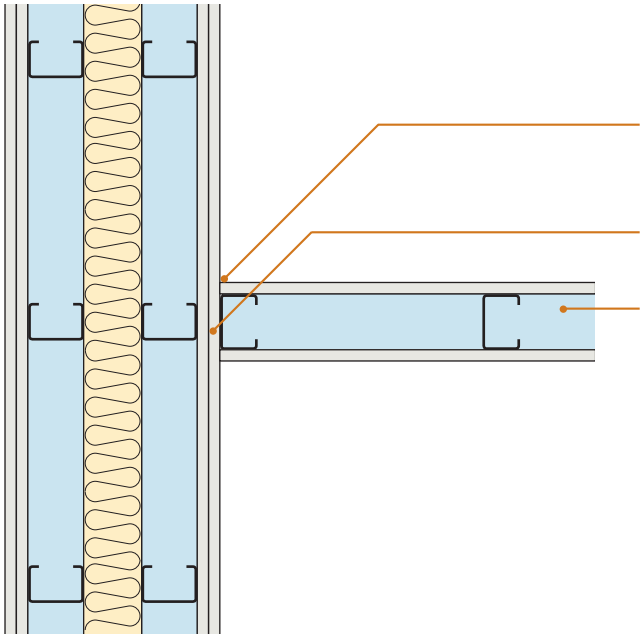


Section

Alternative detail with timber floating floor finish



10. Internal wall junction

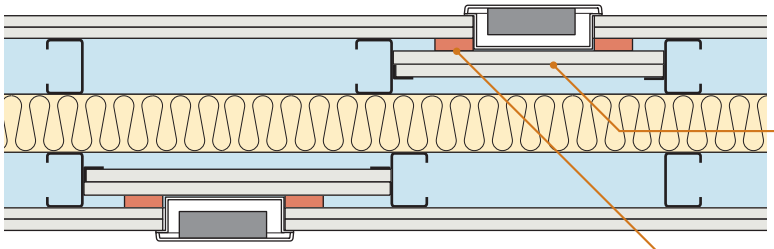


Plan

Ensure studs, top and bottom rails or gypsum boards do not bridge between the twin frames

11. Services and sockets in the separating wall

11.1 Electrical sockets, switches etc



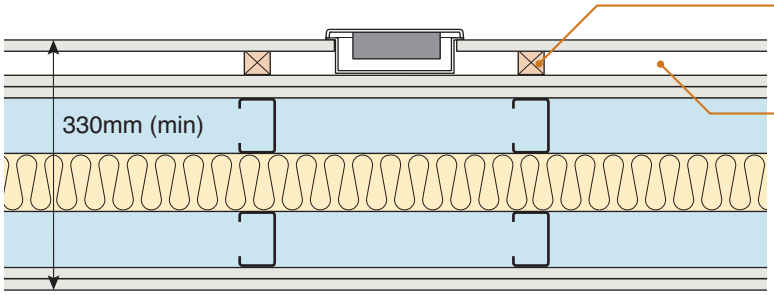
Plan

Stagger sockets, switches, etc. on each side of the wall such that they are not positioned in opposite bays

Provide two or more layers of gypsum-based board (total nominal mass per unit area 20 kg/m²) to enclose electrical boxes

Fire resistant seal where required by Part B of the Building Regulations

11.2 Electrical sockets and switches in service void



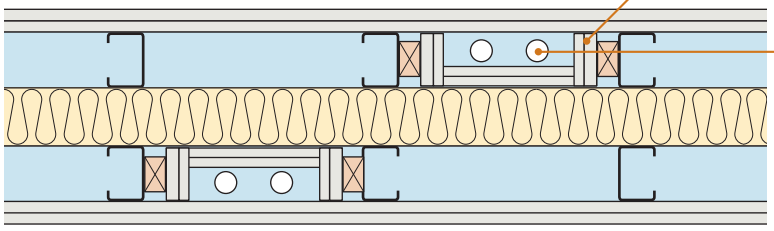
Plan

Service void using min 25mm battens or steel studs with 2 layers of gypsum board

Service void on surface of separating wall. This is the preferred method where more than one socket, switch, etc. are close together, e.g. in a kitchen

Studs or battens used to create the service zone should be securely fixed back to the separating wall structure

11.3 Piped services located within wall



Plan

Provide two or more layers of gypsum-based board (total nominal mass per unit area 20 kg/m²) to enclose pipes

Stagger services on each side of the wall such that they are not positioned in opposite bays

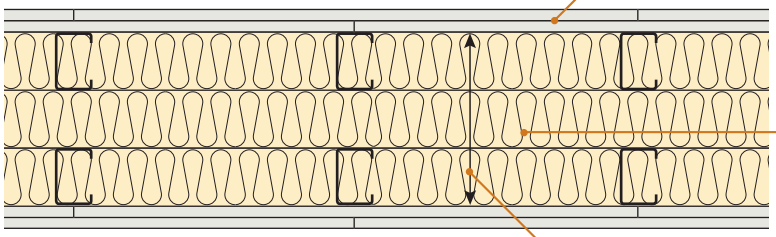
Note: this detail is not applicable for SVPs or gas pipes

Ensure studs, top and bottom rails or gypsum boards do not bridge between the twin frames

12. Higher performing wall constructions

The sound insulation performance can be increased by using the following:

12.1 Full-fill option



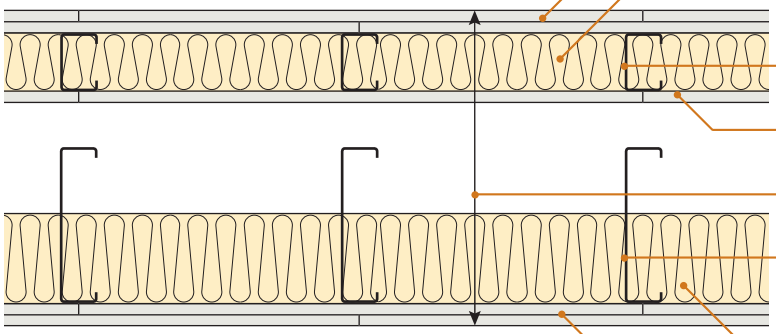
Plan

2 layers of gypsum-based board total min 20 kg/m²

Wall width fully filled with unfaced mineral wool batts (density 10-40 kg/m³)

230mm (min) or 190mm (min) where service zones are used (see Section 8)

12.2 330mm 5-board option



Plan

2 layers of gypsum-based board total min 20 kg/m²

50mm (min) mineral wool batts (density 10-40 kg/m³)

50mm (min) stud

1 layer of gypsum board min 12 kg/m³

330mm (min)

190mm (min) stud

100mm (min) mineral wool batts (density 10-40 kg/m³)

2 layers of gypsum-based board total min 20 kg/m²

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Are wall linings min 230mm apart or min 190mm apart (if using service linings)?			
2.	Are the twin frames acoustically isolated?			
3.	Is quilt fully covering zone between twin frames with no gaps?			
4.	Are the wall lining boards min 20 kg/m^2 combined?			
5.	Are all joints in wall lining staggered?			
6.	Are all joints sealed?			
7.	Are the inner leaf flanking walls non continuous at the junction with separating wall or column?			
8.	Does the cavity stop fully seal the void in the external cavity?			

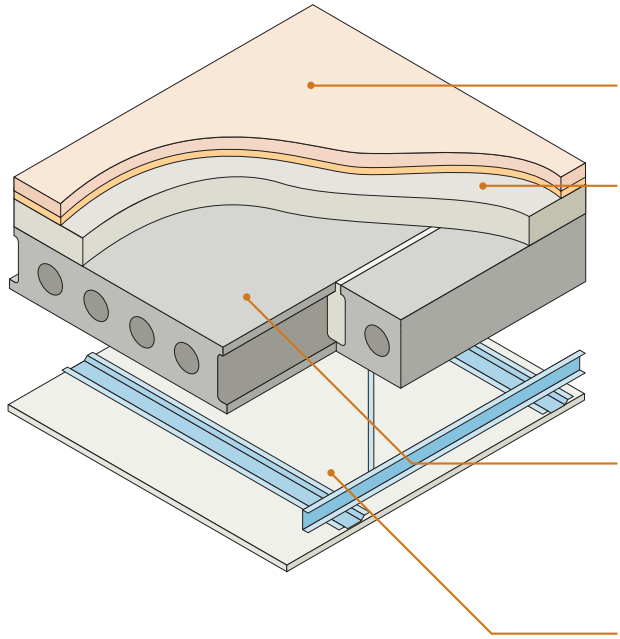
Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Separating Floor – Concrete

E-FC-1

Precast concrete plank ■
Screed with floating floor treatment ■



Sketch shows FFT5 type floating floor treatment and CT1 type ceiling treatment

Floating floor	See section 4 for suitable floating floor treatment
Screed	- 40mm (min) screed directly applied to plank - cement:sand or proprietary screed nominal 80 kg/m² mass per unit area, see Appendix A
Structural floor	Precast concrete plank of 150mm (min) thickness and 300 kg/m² (min) mass per unit area
Ceiling	See section 3 for suitable ceiling treatment

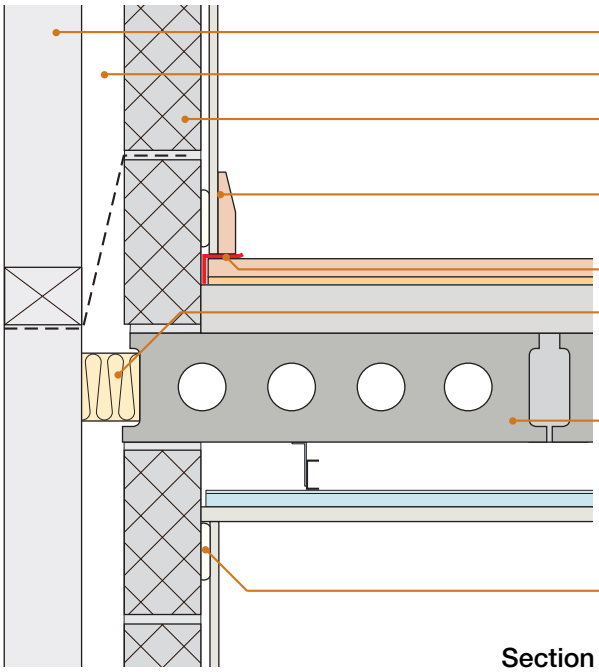
Direct applied screed

It is permissible to lay the screed over a max. 0.5mm thick membrane, if required

DO

- Butt planks tightly together
- Grout all joints between planks
- Fill all voids between walls and floor
- Ensure floating floor treatment is suitable and install in accordance with the manufacturer's instructions
- Install flanking strips around the perimeter of the flooring board to isolate floor from walls and skirtings
- Make sure ceiling treatment is installed in accordance with the manufacturer's instructions (where applicable)
- Ensure that only the correct blocks are used in the construction of external (flanking) walls, unless specifically referred to in the Handbook all blocks should be assumed to be solid (i.e. not hollow or cellular)
- Refer to Appendix A

1. External (flanking) wall junction

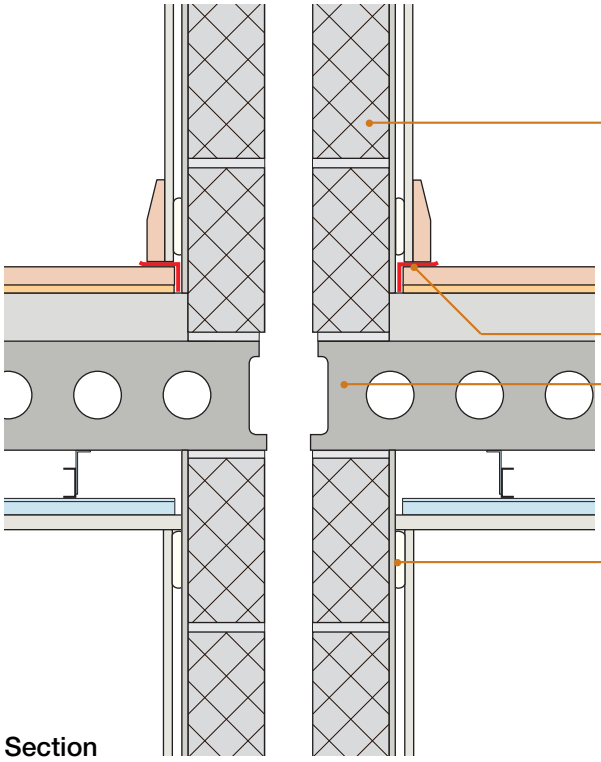


Section

- Masonry outer leaf
- External wall cavity (min 50mm)
- Inner leaf (min 100mm) concrete block (1350 kg/m³ to 1600 kg/m³ or 1850 - 2300 kg/m³)
- Nominal 8 kg/m² gypsum-based board or 13mm plaster
- 5mm (min) resilient flanking strip
- Close cavity with a flexible cavity stop unless it is fully filled with built in mineral wool insulation
- Concrete planks to be built into wall:
  - wall must not be continuous between storeys
  - planks must not abut inner leaf
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Continuous horizontal ribbon of adhesive

Sketch shows FFT5 type floating floor treatment and CT1 type ceiling treatment

2. Separating wall junction



Section

- Separating wall:
  - if using robustdetails® for wall - refer to Table 3a in introduction to select an appropriate Robust Detail separating wall
  - if using wall requiring pre-completion testing – seek specialist advice
- 5mm (min) resilient flanking strip
- Concrete planks to be built into wall:
  - wall must not be continuous between storeys
  - planks must not abut separating wall
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Continuous horizontal ribbon of adhesive

Sketch shows FFT5 type floating floor treatment and CT1 type ceiling treatment

3. Ceiling treatments for E-FC-1

All ceiling treatments must be installed in accordance with the manufacturer's instructions. All ceiling joints must be sealed with tape or caulked with sealant.

The maximum load on resilient bars shall not exceed that specified in the manufacturer's instructions.

Note: the sound insulation performance of all ceiling treatments is increased if:

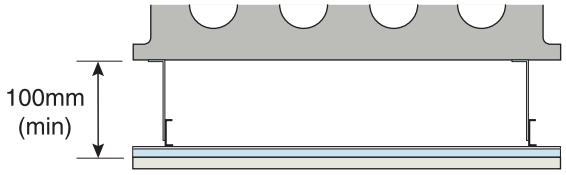
- 25mm (min) mineral wool quilt is placed in the ceiling void, and/or
- resilient hangers are used.

Downlighters and recessed lighting

Provided there is a minimum ceiling void of 75mm downlighters or recessed lighting may be installed in the ceiling:

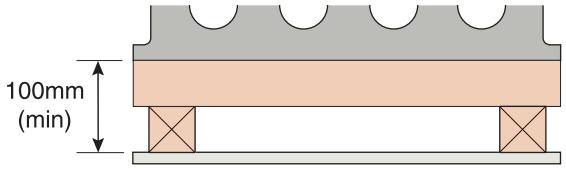
- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room or see Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety



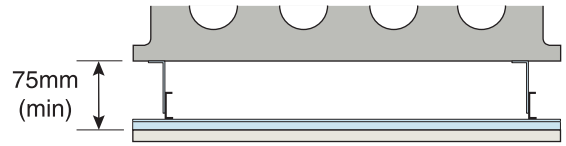
CT1 – Metal ceiling system - 100mm void

- any metal ceiling system providing 100mm (min) ceiling void
- one layer of nominal 8 kg/m² gypsum-based board



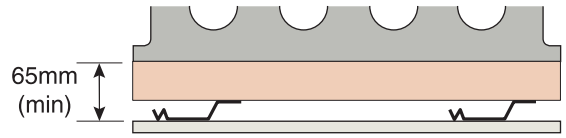
CT2 – Timber battens and counterbattens

- 50 x 50mm softwood battens
- 50 x 50mm counterbattens
- one layer of 8 kg/m² gypsum-based board



CT3 – Metal ceiling system - 75mm void

- any metal ceiling system providing 75mm (min) ceiling void
- one layer of nominal 10 kg/m² gypsum-based board



CT4 – Timber battens and metal resilient bars

Only suitable for use in conjunction with 200mm (min) precast concrete floor plank of mass per unit area 300 kg/m² (min).

- 50 x 50mm softwood battens
- metal resilient ceiling bars mounted at right angles to the battens (bars must achieve a minimum laboratory performance of rd $\Delta R_w + C_{tr} = 17$dB and rd $\Delta L_w = 16$dB) - see Appendix E
- one layer of minimum nominal 10 kg/m² gypsum-based board

4. Floating floor treatments for E-FC-1

All floating floor treatments :

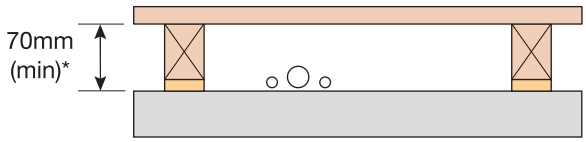
a) Must achieve a minimum laboratory performance of rdΔL_w=17dB - see Appendix D.

b) Must be installed in accordance with the manufacturer's instructions.

c) Require 5mm (min) resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirting.

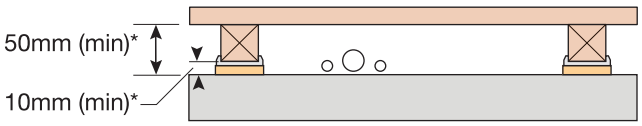
d) For further guidance on floating floor treatments and flanking strips, please refer to Appendix A.

* Note - void dimensions indicated are when floor is loaded to 25 kg/m^2.



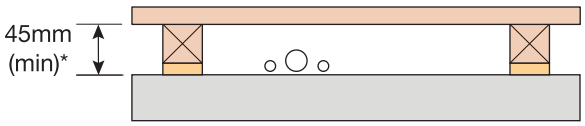
FFT 1 – Resilient composite deep batten system

- 18mm (min) t&g flooring board
- resilient layer must be continuous and pre-bonded to batten
- resilient composite deep battens
- ensure any services do not bridge the resilient layer
- battens may have the resilient layer at the top or the bottom



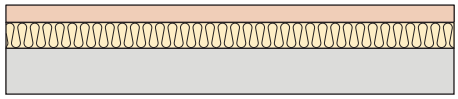
FFT 2 – Resilient cradle and batten system

- 18mm (min) t&g flooring board
- cradle and batten
- ensure any services do not bridge the resilient layer



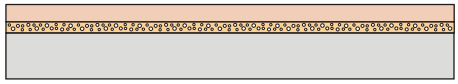
FFT 3 – Resilient composite standard batten system

- 18mm (min) t&g flooring board
- resilient layer must be continuous and pre-bonded to batten
- resilient composite standard battens
- ensure any services do not bridge the resilient layer
- battens may have the resilient layer at the top or the bottom



FFT 4 – Resilient overlay platform floor system

- proprietary platform system inclusive of resilient layer greater than or equal to 16 kg/m^2 mass per unit area
- no services to be installed in floor system*

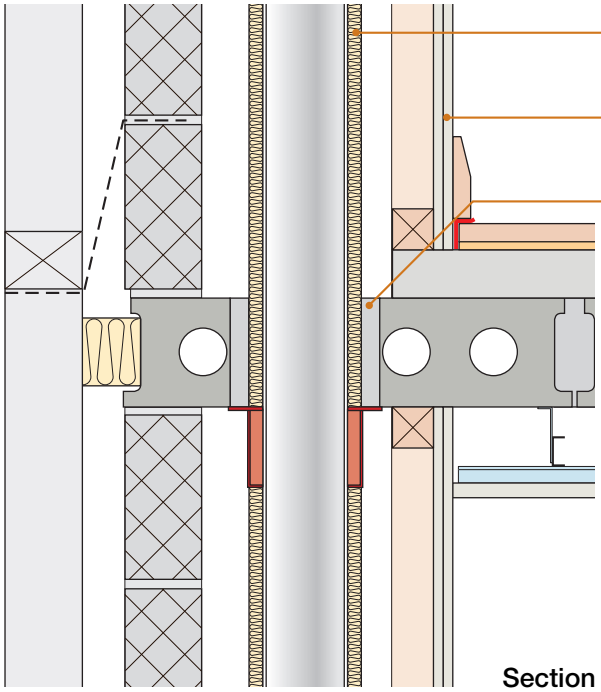


FFT 5 – Resilient overlay shallow platform floor system

- 9mm (min) t&g flooring board
- resilient layer pre-bonded to flooring board
- no services to be installed in floor system*

***** Additional under floor heating layers may be incorporated within FFT4 and FFT5 provided the complete build-up, using all components, has been tested to give a minimum laboratory performance of rdΔL_w=17dB - see Appendix D.

5. Services – Service pipes through separating floor



Sketch shows FFT5 type floating floor treatment and CT3 type ceiling treatment

CHECKLIST (to be completed by site manager /supervisor)

Company:

Site:

Plot: Site manager/supervisor:

Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Are precast concrete planks 150mm (min) thick and of mass per unit area 300 kg/m^2 (min)?			
2.	Are inner leaves to external (flanking) walls of the correct block density?			
3.	Are joints between precast concrete planks grouted?			
4.	Are precast concrete planks built into the masonry walls?			
5.	Is screed applied directly to the planks; or over a max 0.5mm thick membrane?			
6.	Has ceiling system been installed in accordance with the manufacturer's instructions (where applicable)?			
7.	Are all ceiling board joints sealed with tape or caulked with sealant?			
8.	Has floating floor treatment been installed in accordance with the manufacturer's instructions?			
9.	Have all resilient flanking strips been fitted?			
10.	Are service pipes wrapped in quilt and boxed in with two layers of nominal 8 kg/m^2 gypsum-based board?			
11.	Is separating floor satisfactorily complete?			

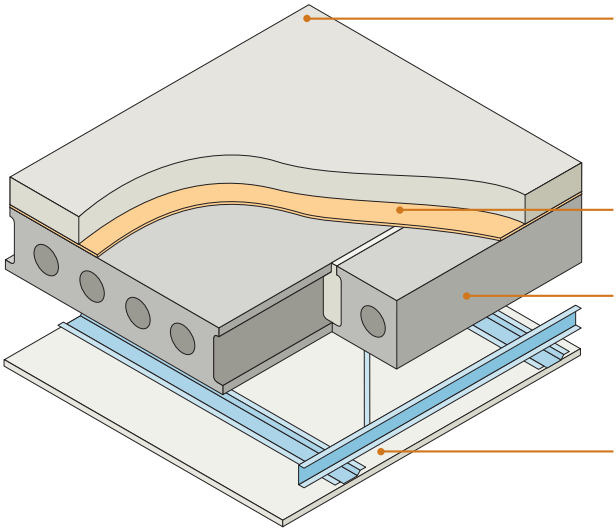
Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Separating Floor – Concrete

E-FC-4

Precast concrete plank ■
Screed laid on Thermal Economics 6mm Isorubber Base resilient layer ■



Sketch shows CT0 type ceiling treatment

Screed	65mm (min) cement:sand screed or 40mm (min) proprietary screed of nominal 80 kg/m² mass per unit area
Resilient layer	6mm Isorubber Base with IsoEdge flanking strip
Structural floor	Precast concrete plank of 150mm (min) thickness and 300 kg/m² (min) mass per unit area
Ceiling	See section 3 for suitable ceiling treatment which is dependent on floor plank depth and supporting wall density

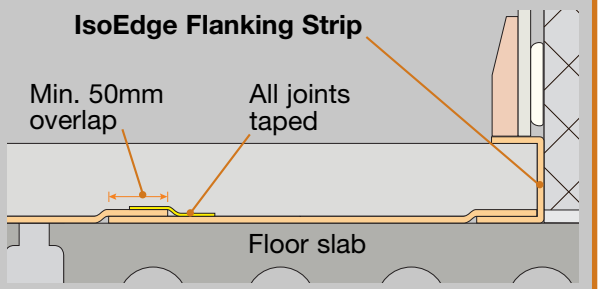
SYSTEM INSTALLATION

The use of this screed resilient layer system **must** incorporate the following:

1) **6mm Isorubber Base** (resilient layer to be laid over entire floor area with minimum 50mm overlaps)

2) **IsoEdge** flanking strip

3) All joints taped



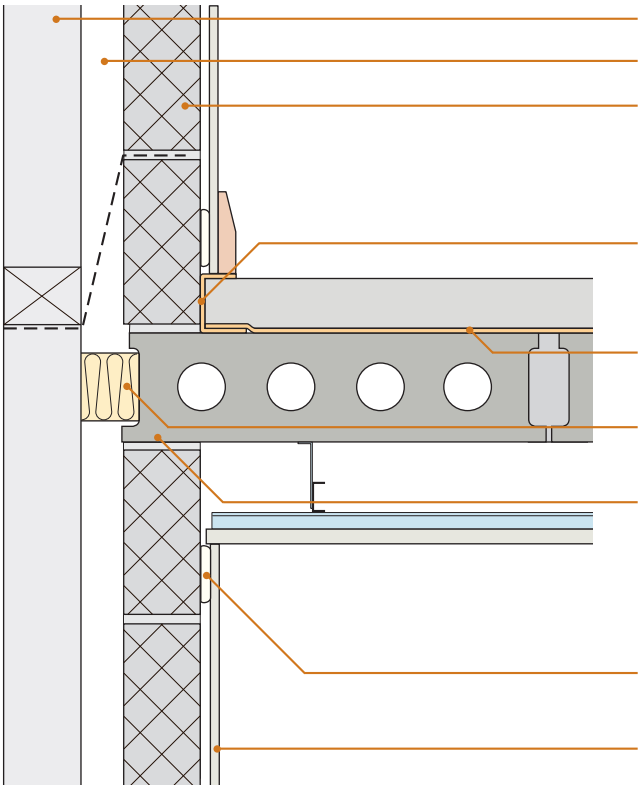
- **IsoEdge** flanking strip to be installed at all room perimeters. See manufacturer's guidance.
- See Section 4 for acceptable installation alternatives for 40mm proprietary screeds

From 1 January 2009, Robust Details Limited can only accept registration of this floor once the builder agrees to receive training from Thermal Economics on the installation of the screed and resilient layer. Please contact Robust Details Limited for further information.

DO

- Butt planks tightly together
- Grout all joints between planks
- Fill all voids between walls and floor
- Ensure 6mm Isorubber resilient layer is laid over the entire floor surface and has overlapped joints of 50mm sealed with tape. On no account should the screed come into contact with the floor slab. (see Section 4 for 40mm proprietary screeds)
- Ensure 6mm Isorubber overlaps with IsoEdge flanking strip. On no account should screed come into contact with floor slab or perimeter walls
- Ensure the IsoEdge flanking strip isolates the skirting and wall linings. On no account should screed come into contact with the wall lining and skirting
- Ensure that only the correct blocks are used in the construction of external (flanking) walls, unless specifically referred to in the Handbook all blocks should be assumed to be solid (i.e. not hollow or cellular)
- Make sure ceiling treatment is installed in accordance with the manufacturer's instructions (where applicable)

1. External (flanking) wall junction

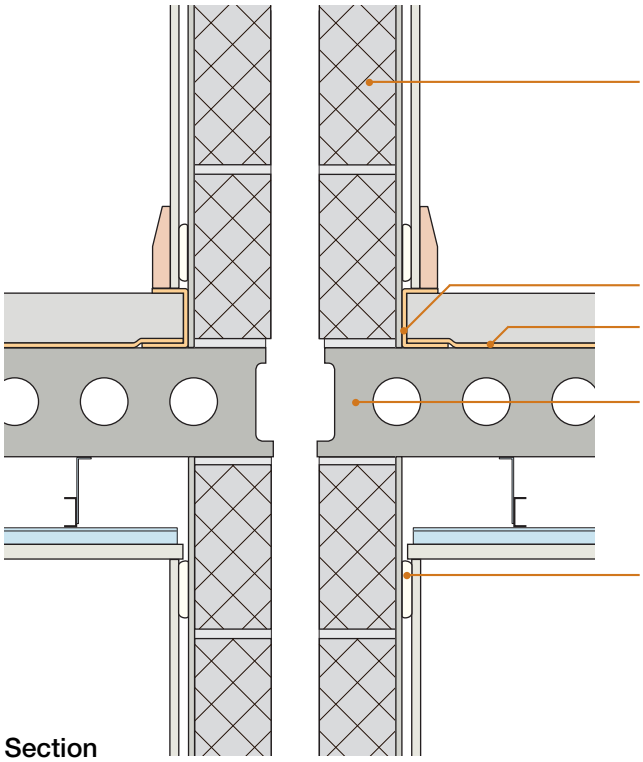


Section

- Masonry outer leaf
- External wall cavity (min 50mm)
- Inner leaf (min 100mm) aggregate concrete block (1350 kg/m³ to 1600 kg/m³ or 1850 - 2300 kg/m³) or Plasmor Aglite Ultima (1050 kg/m³) or aircrete block (450-800 kg/m³)
- IsoEdge flanking strip must overlap with Isorubber resilient layer and isolate screed from perimeter walls and skirtings
- Isorubber resilient layer must have 50mm (min) overlapped joints and be sealed with tape
- Close cavity with a flexible cavity stop unless it is fully filled with mineral wool insulation
- Concrete planks must be built into walls:
  - walls must not be continuous between storeys
  - planks must not abut inner leaf
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Continuous horizontal ribbon of adhesive or IsoEdge ceiling strip
- Nominal 8 kg/m² gypsum-based board or 13mm plaster

Sketch shows CT0 type ceiling treatment

2. Separating wall junction



Section

- Separating wall:
  - if using robustdetails® for wall - refer to Table 3a in introduction to select an appropriate Robust Detail separating wall
  - if using wall requiring pre-completion testing – seek specialist advice
- IsoEdge flanking strip
- Isorubber resilient layer to overlap IsoEdge flanking strip
- Concrete planks to be built into wall:
  - wall must not be continuous between storeys
  - planks must not abut separating wall
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Continuous horizontal ribbon of adhesive or IsoEdge ceiling strip

Sketch shows CT0 type ceiling treatment

3. Ceiling treatments for E-FC-4

All ceiling treatments must be installed in accordance with the manufacturer's instructions. All ceiling joints must be sealed with tape or caulked with sealant.

Note: the sound insulation performance of all ceiling treatments is increased if:

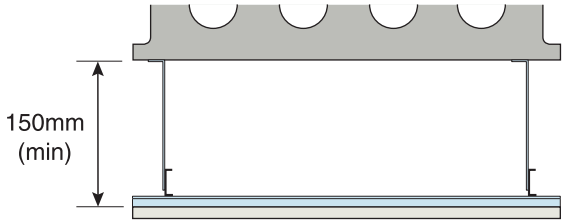
- 25mm (min.) mineral fibre quilt is placed in the ceiling void, and/or
- resilient hangers are used.

Downlighters and recessed lighting

Provided there is a minimum ceiling void as stated below for CT0, CT1 or CT2, downlighters or recessed lighting may be installed in the ceiling:

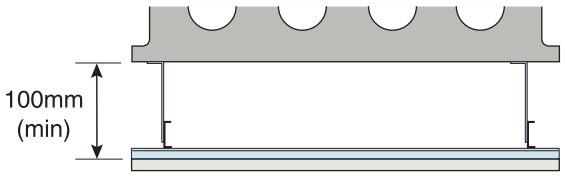
- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room or see Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety



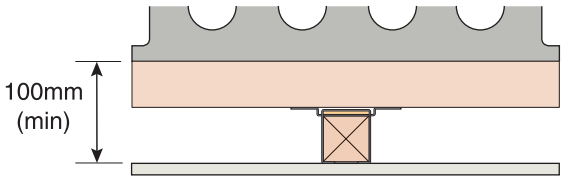
CT0 – Metal ceiling system - 150mm void
To be used for 150mm (min) depth concrete planks

- any metal ceiling system providing 150mm (min) ceiling void
- one layer of nominal 8 kg/m² gypsum-based board



CT1 – Metal ceiling system - 100mm void
Only to be used for 200mm (min) depth concrete planks

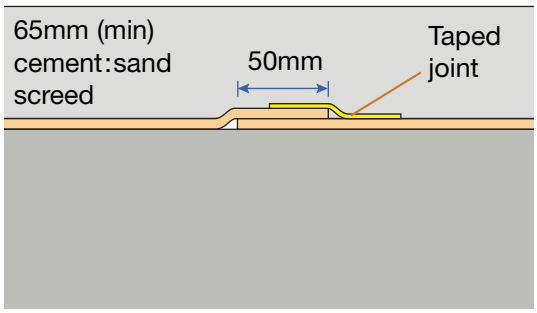
- any metal ceiling system providing 100mm (min) ceiling void
- one layer of nominal 8 kg/m² gypsum-based board



CT2 – Timber battens and counterbattens with IsoSonic Hangers Type C. Only to be used for 200mm (min) depth concrete planks

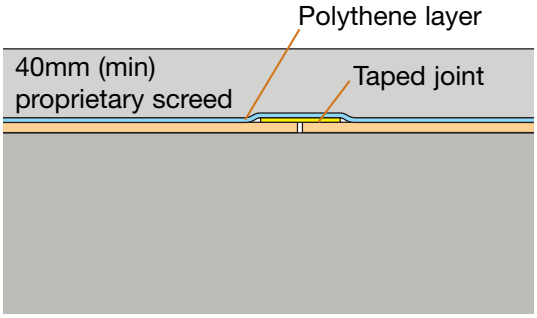
- 50x50mm softwood battens
- 50x50mm counterbattens
- Isosonic Hangers Type C
- one layer of nominal 8 kg/m² gypsum-based board

4. Resilient layer installation for different screed types



SCREED TYPE
65mm (min) cement:sand screed

- Isorubber joints to be overlapped by 50mm (min)
- Upper Isorubber edge joints to be sealed by tape



SCREED TYPE
40mm (min) proprietary screed

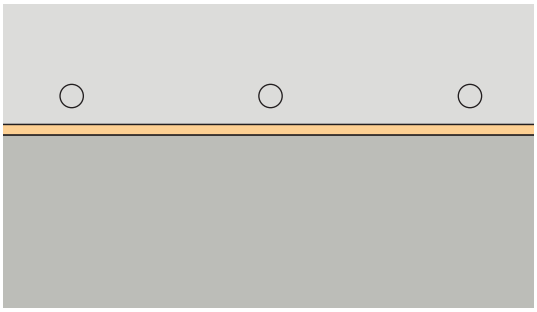
- Isorubber joints to be butt jointed
- Isorubber joints to be sealed by tape
- Polythene layer to be laid over whole floor overlapping joints

5. Underfloor heating systems within screeds

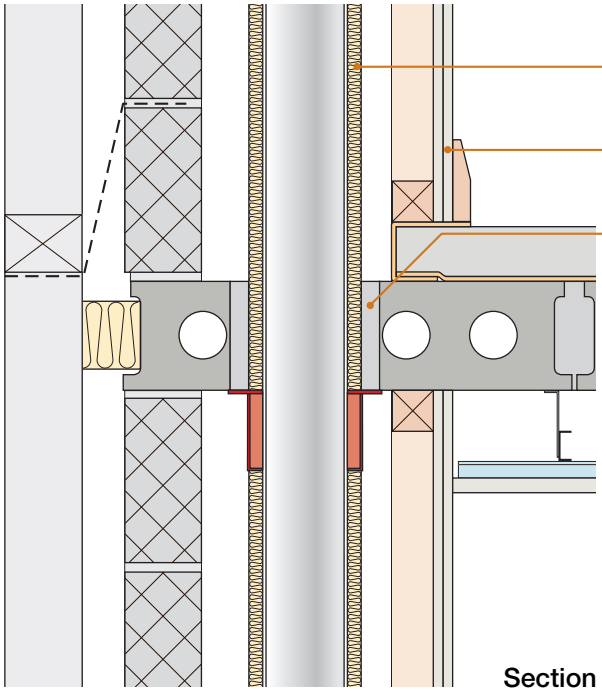
Underfloor heating systems (including connectors and fixings) installed within the screed must not penetrate the resilient layer or bridge the screed to the slab.

Underfloor heating systems which have a supporting layer/board may be laid on top of the Isorubber.

Appropriate screed depth cover to the heating system must be designed for – contact underfloor heating manufacturer for guidance.



6. Services – Service pipes through separating floor



Sketch shows CT0 type ceiling treatment

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Has training been received from Thermal Economics?			
2.	Are precast concrete planks 150mm (min) thick and of mass per unit area 300 kg/m^2 (min)?			
3.	Are inner leaves to external (flanking) walls of the correct block density?			
4.	Are joints between precast concrete planks grouted and sealed?			
5.	Are precast concrete planks built into the masonry walls?			
6.	Is the IsoEdge flanking strip installed for all room perimeters?			
7.	Are the Isorubber joints overlapped by 50mm and sealed with tape?			
8.	Is the Isorubber layer overlapping the IsoEdge flanking strip?			
9.	Are the skirting boards isolated from the screed by the IsoEdge flanking strip?			
10.	Are all ceiling board joints sealed with tape or caulked with sealant?			
11.	Are service pipes wrapped in quilt and boxed in with two layers of nominal 8 kg/m^2 gypsum-based board?			
12.	Is separating floor satisfactorily complete?			

Contact details for technical assistance from Thermal Economics, manufacturer of Isorubber resilient layer system:

Telephone: 01582 544255 **Fax:** 01582 429305 **E-mail:** technical@thermal-economics.co.uk

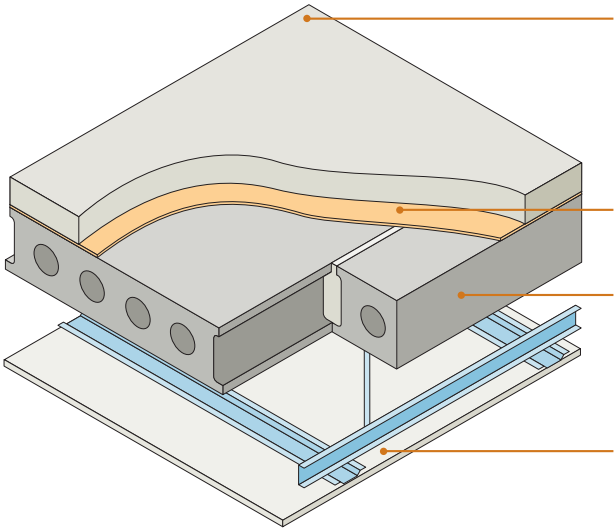
Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Separating Floor – Concrete

E-FC-12

Precast concrete plank ■
Screed laid on Thermal Economics Isorubber HP3 resilient layer ■



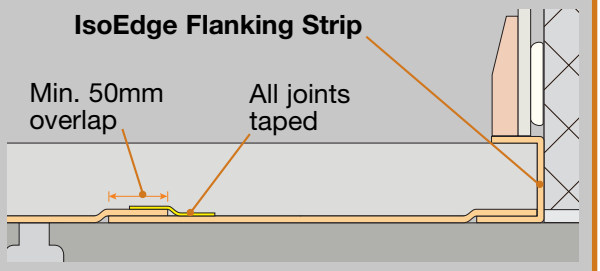
Sketch shows CT1 type ceiling treatment

Screed	65mm (min) cement:sand screed or 40mm (min) proprietary screed of nominal 80 kg/m² mass per unit area
Resilient layer	3mm Isorubber HP3 layer with IsoEdge flanking strip
Structural floor	Precast concrete plank of 150mm (min) thickness and 300 kg/m² (min) mass per unit area
Ceiling	See section 3 for suitable ceiling treatment

SYSTEM INSTALLATION

The use of this screed resilient layer system **must** incorporate the following:

1) **3mm Isorubber HP3** (resilient layer to be laid over entire floor area with minimum 50mm overlaps)
2) **IsoEdge** flanking strip
3) All joints taped



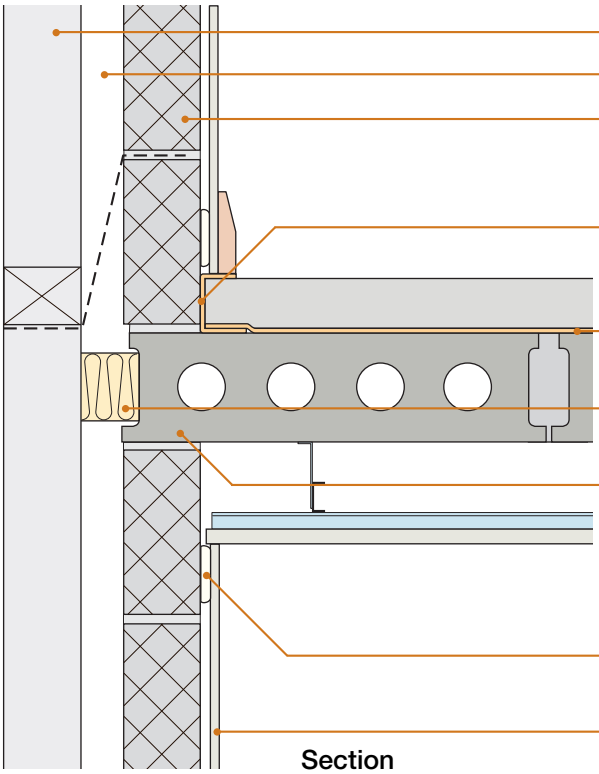
- **IsoEdge** flanking strip to be installed at all room perimeters. See manufacturer's guidance.
- See Section 4 for acceptable installation alternatives for 40mm proprietary screeds

From 1 January 2009, Robust Details Limited can only accept registration of this floor once the builder agrees to receive training from Thermal Economics on the installation of the screed and resilient layer. Please contact Robust Details Limited for further information.

DO

- Butt planks tightly together
- Grout all joints between planks
- Fill all voids between walls and floor
- Ensure 3mm Isorubber HP3 resilient layer is laid over the entire floor surface and has overlapped joints of 50mm sealed with tape. On no account should the screed come into contact with the floor slab. (see Section 4 for 40mm proprietary screeds)
- Ensure 3mm Isorubber HP3 overlaps with IsoEdge flanking strip. On no account should screed come into contact with floor slab or perimeter walls
- Ensure the IsoEdge flanking strip isolates the skirting and wall linings. On no account should screed come into contact with the wall lining and skirting
- Ensure that only the correct blocks are used in the construction of external (flanking) walls, unless specifically referred to in the Handbook all blocks should be assumed to be solid (i.e. not hollow or cellular)
- Make sure ceiling treatment is installed in accordance with the manufacturer's instructions (where applicable)

1. External (flanking) wall junction

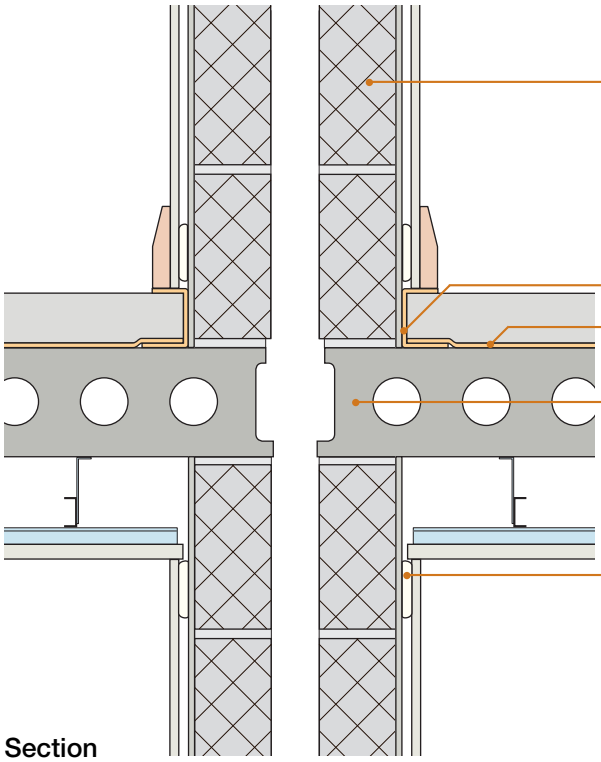


Section

- Masonry outer leaf
- External wall cavity (min 50mm)
- Inner leaf (min 100mm) aggregate concrete block (1350-1600 kg/m^3 or 1850-2300 kg/m^3) or aircrete block (450-800 kg/m^3)
- IsoEdge flanking strip must overlap with Isorubber resilient layer and isolate screed from perimeter walls and skirtings
- Isorubber resilient layer must have 50mm (min) overlapped joints and be sealed with tape
- Close cavity with a flexible cavity stop unless it is fully filled with mineral wool insulation
- Concrete planks must be built into walls:
  - walls must not be continuous between storeys
  - planks must not abut inner leaf
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Continuous horizontal ribbon of adhesive or IsoEdge ceiling strip
- Nominal 8 kg/m^2 gypsum-based board or 13mm plaster

Sketch shows CT1 type ceiling treatment

2. Separating wall junction



Section

- Separating wall:
  - if using robustdetails® for wall - refer to Table 3a in introduction to select an appropriate Robust Detail separating wall
  - if using wall requiring pre-completion testing – seek specialist advice
- IsoEdge flanking strip
- Isorubber resilient layer to overlap IsoEdge flanking strip
- Concrete planks to be built into wall:
  - wall must not be continuous between storeys
  - planks must not abut separating wall
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Continuous horizontal ribbon of adhesive or IsoEdge ceiling strip

Sketch shows CT1 type ceiling treatment

3. Ceiling treatments for E-FC-12

All ceiling treatments must be installed in accordance with the manufacturer's instructions. All ceiling joints must be sealed with tape or caulked with sealant.

Note: the sound insulation performance of all ceiling treatments is increased if:

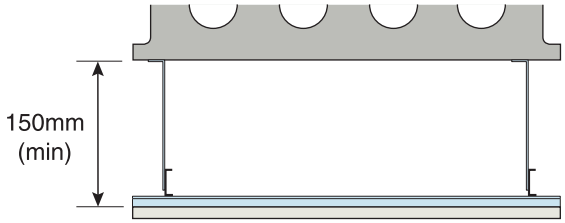
- 25mm (min.) mineral fibre quilt is placed in the ceiling void, and/or
- resilient hangers are used.

Downlighters and recessed lighting

Provided there is a minimum ceiling void as stated below for CT0, CT1 or CT2, downlighters or recessed lighting may be installed in the ceiling:

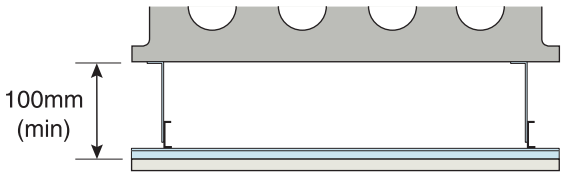
- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room or see Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety



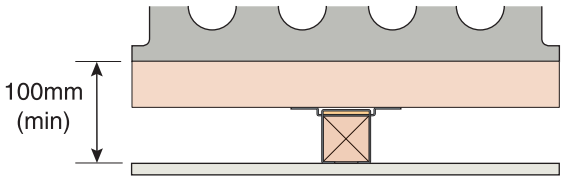
CT0 – Metal ceiling system - 150mm void
To be used for 150mm (min) depth concrete planks

- any metal ceiling system providing 150mm (min) ceiling void
- one layer of nominal 8 kg/m² gypsum-based board



CT1 – Metal ceiling system - 100mm void
Only to be used for 200mm (min) depth concrete planks

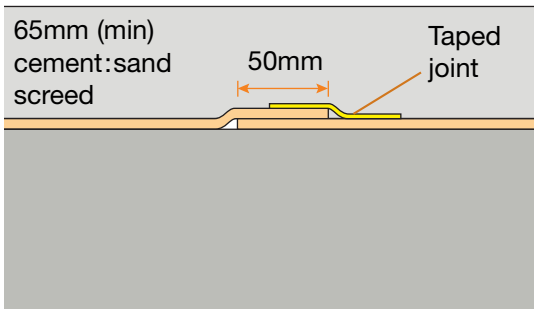
- any metal ceiling system providing 100mm (min) ceiling void
- one layer of nominal 8 kg/m² gypsum-based board



CT2 – Timber battens and counterbattens with IsoSonic Hangers Type C. Only to be used for 200mm (min) depth concrete planks

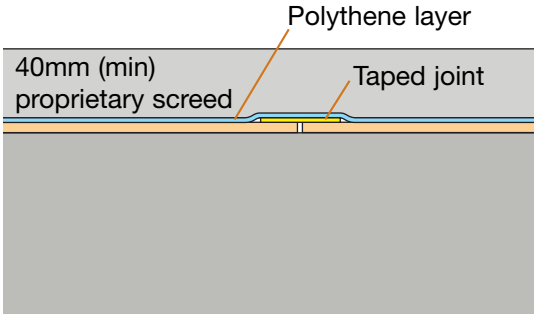
- 50x50mm softwood battens
- 50x50mm counterbattens
- Isosonic Hangers Type C
- one layer of nominal 8 kg/m² gypsum-based board

4. Resilient layer installation for different screed types



SCREED TYPE
65mm (min) cement:sand screed

- Isorubber joints to be overlapped by 50mm (min)
- Upper Isorubber edge joints to be sealed by tape



SCREED TYPE
40mm (min) proprietary screed

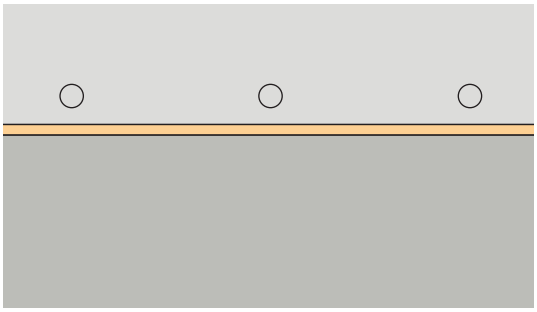
- Isorubber joints to be butt jointed
- Isorubber joints to be sealed by tape
- Polythene layer to be laid over whole floor overlapping joints

5. Underfloor heating systems within screeds

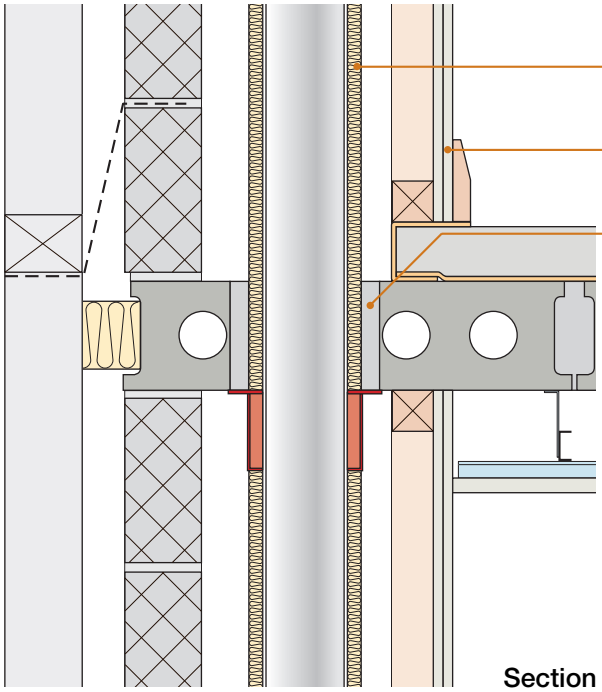
Underfloor heating systems (including connectors and fixings) installed within the screed must not penetrate the resilient layer or bridge the screed to the slab.

Underfloor heating systems which have a supporting layer/board may be laid on top of the Isorubber.

Appropriate screed depth cover to the heating system must be designed for – contact underfloor heating manufacturer for guidance.



6. Services – Service pipes through separating floor



Sketch shows CT1 type ceiling treatment

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Has training been received from Thermal Economics?			
2.	Are precast concrete planks 150mm (min) thick and of mass per unit area 300 kg/m^2 (min)?			
3.	Are inner leaves to external (flanking) walls of the correct block density?			
4.	Are joints between precast concrete planks grouted and sealed?			
5.	Are precast concrete planks built into the masonry walls?			
6.	Is the IsoEdge flanking strip installed for all room perimeters?			
7.	Are the Isorubber joints overlapped by 50mm and sealed with tape?			
8.	Is the Isorubber layer overlapping the IsoEdge flanking strip?			
9.	Are the skirting boards isolated from the screed by the IsoEdge flanking strip?			
10.	Are all ceiling board joints sealed with tape or caulked with sealant?			
11.	Are service pipes wrapped in quilt and boxed in with two layers of nominal 8 kg/m^2 gypsum-based board?			
12.	Is separating floor satisfactorily complete?			

Contact details for technical assistance from Thermal Economics, manufacturer of Isorubber resilient layer system:

Telephone: 01582 544255 **Fax:** 01582 429305 **E-mail:** technical@thermal-economics.co.uk

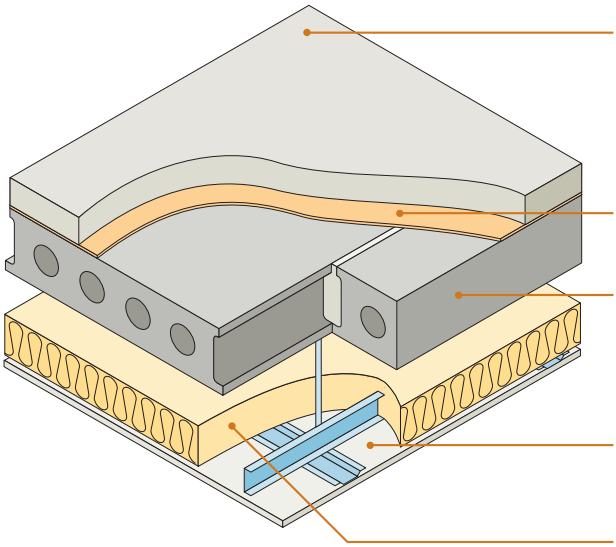
Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Separating Floor – Concrete

E-FC-14

Precast concrete plank ■
Screed laid on Thermal Economics 6mm Isorubber Base layer ■



Sketch shows CT0 type ceiling treatment

Screed	65mm (min) cement:sand screed or 40mm (min) proprietary screed of nominal 80 kg/m² mass per unit area
Resilient layer	6mm Isorubber Base layer with IsoEdge flanking strip
Structural floor	Precast concrete plank of 150mm (min) thickness and 300 kg/m² (min) mass per unit area
Ceiling	See section 3 for suitable ceiling treatment
Absorbent material	50mm (min) mineral wool quilt insulation 10 kg/m³ (min)

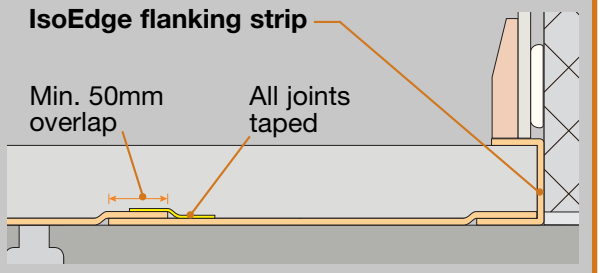
SYSTEM INSTALLATION

The use of this screed resilient layer system **must** incorporate the following:

1) **6mm Isorubber Base layer**
(resilient layer to be laid over entire floor area with minimum 50mm overlaps)

2) **IsoEdge** flanking strip

3) All joints taped



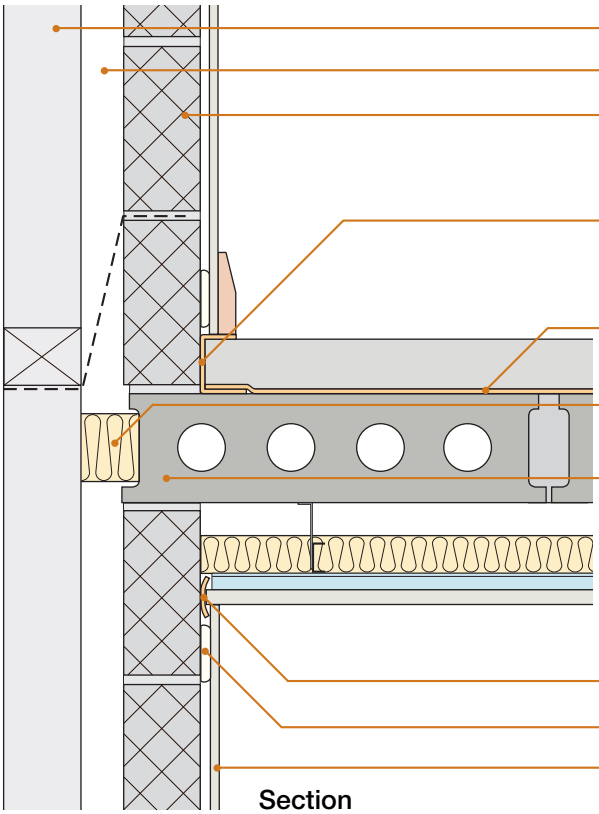
- **IsoEdge** flanking strip to be installed at all room perimeters. See manufacturer's guidance.
- See Section 4 for acceptable installation alternatives for 40mm proprietary screeds

Robust Details Limited can only accept registration of this floor once the builder agrees to receive training from Thermal Economics on the installation of the screed and resilient layer. Please contact Robust Details Limited for further information.

DO

- Butt planks tightly together
- Grout all joints between planks
- Fill all voids between walls and floor
- Ensure 6mm Isorubber resilient layer is laid over the entire floor surface and has overlapped joints of 50mm sealed with tape. On no account should the screed come into contact with the floor slab. (see Section 4 for 40mm proprietary screeds)
- Ensure 6mm Isorubber overlaps with IsoEdge flanking strip. On no account should screed come into contact with floor slab or perimeter walls
- Ensure the IsoEdge flanking strip isolates the skirting and wall linings. On no account should screed come into contact with the wall lining and skirting
- Ensure that only the correct blocks are used in the construction of external (flanking) walls, unless specifically referred to in the Handbook all blocks should be assumed to be solid (i.e. not hollow or cellular)
- Make sure ceiling treatment is installed in accordance with the manufacturer's instructions

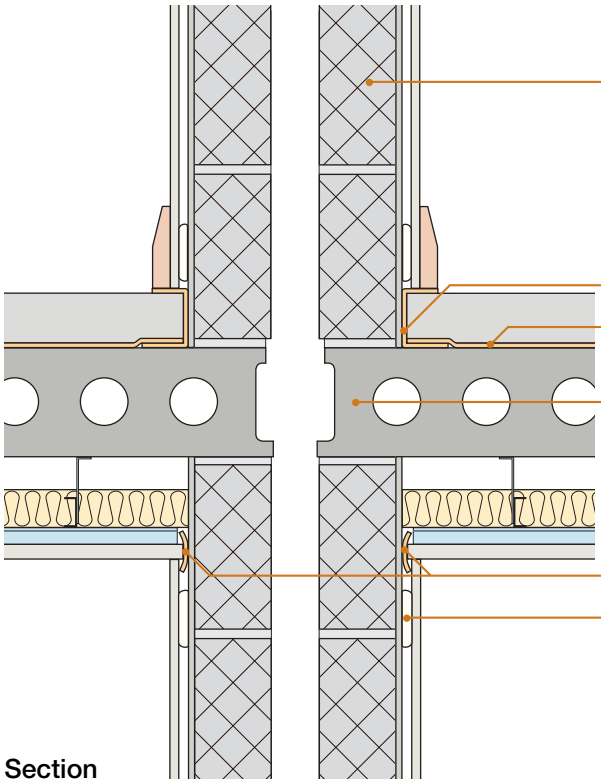
1. External (flanking) wall junction



- Masonry outer leaf
- External wall cavity (min 50mm)
- Inner leaf (min 100mm) aggregate concrete block (1350 kg/m³ to 1600 kg/m³ or 1850 - 2300 kg/m³) or aircrete block (450-800 kg/m³)
- IsoEdge flanking strip must overlap with Isorubber resilient layer and isolate screed from perimeter walls and skirtings
- Isorubber layer must have 50mm (min) overlapped joints and be sealed with tape
- Close cavity with a flexible cavity stop unless it is fully filled with mineral wool insulation
- Concrete planks must be built into walls:
  - walls must not be continuous between storeys
  - planks must not abut inner leaf
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Isosonic ceiling strip
- Continuous horizontal ribbon of adhesive
- Nominal 8 kg/m² gypsum-based board or 13mm plaster

Sketch shows CT0 type ceiling treatment

2. Separating wall junction



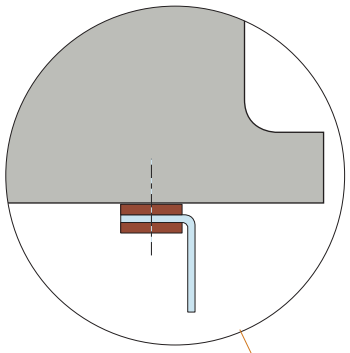
- Separating wall:
  - if using robustdetails® for wall - refer to Table 3a in introduction to select an appropriate Robust Detail separating wall
  - if using wall requiring pre-completion testing – seek specialist advice
- IsoEdge flanking strip
- Isorubber layer to overlap IsoEdge flanking strip
- Concrete planks to be built into wall:
  - wall must not be continuous between storeys
  - planks must not abut separating wall
  - all voids between planks and blockwork filled with mortar or flexible sealant
- Isosonic ceiling strip
- Continuous horizontal ribbon of adhesive

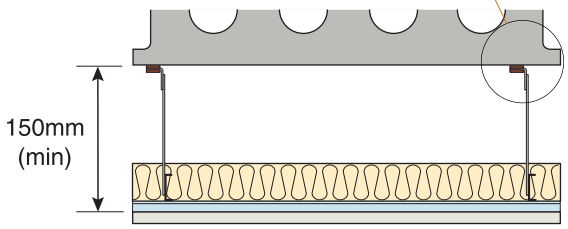
Sketch shows CT0 type ceiling treatment

3. Ceiling treatments for E-FC-14

All ceiling treatments must be installed in accordance with the manufacturer's instructions. All ceiling joints must be sealed with tape or caulked with sealant.

Ensure Isosonic cleats are fitted with the pads against the concrete planks





Downlighters and recessed lighting

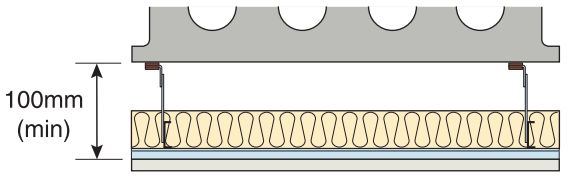
Provided there is a minimum ceiling void as stated below for CT0, CT1 or CT2, downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room or see Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

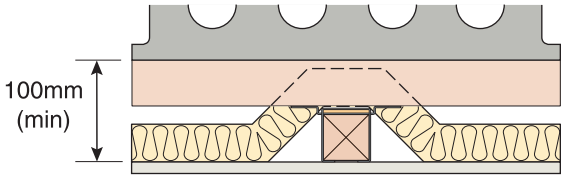
CT0 – Metal ceiling system - 150mm void
To be used for 150mm (min) depth concrete planks

- any metal ceiling frame, suspended from Isosonic cleats
- 50mm (min) mineral wool quilt insulation 10 kg/m³ (min)
- one layer 15mm (nominal 10 kg/m²) gypsum-based board



CT1 – Metal ceiling system - 100mm void
Only to be used for 200mm (min) depth concrete planks

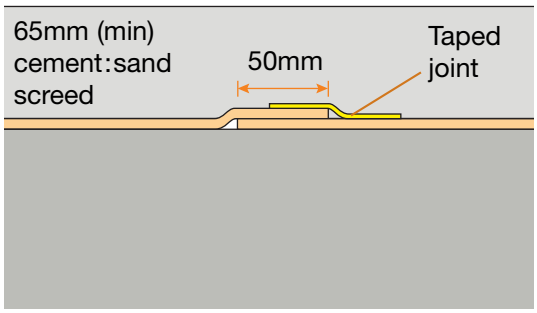
- any metal ceiling frame, suspended from Isosonic cleats
- 50mm (min) mineral wool quilt insulation 10 kg/m³ (min)
- one layer 15mm (nominal 10 kg/m²) gypsum-based board



CT2 – Timber battens and counterbattens with IsoSonic Hangers Type C. Only to be used for 200mm (min) depth concrete planks

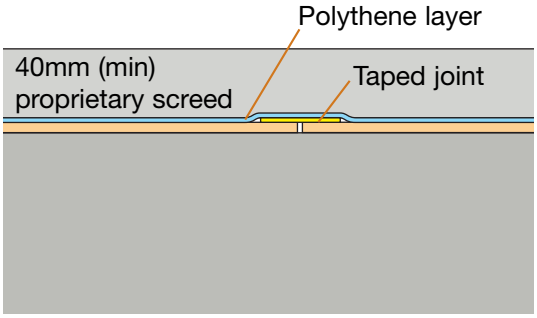
- 50 x 50mm softwood battens
- 50x50mm counterbattens
- Isosonic Hangers Type C
- 50mm (min) mineral wool quilt insulation 10 kg/m³ (min)
- one layer 15mm (nominal 10 kg/m²) gypsum-based board

4. Resilient layer installation for different screed types



SCREED TYPE
65mm (min) cement:sand screed

- Isorubber layer joints to be overlapped by 50mm (min)
- Upper Isorubber layer edge joints to be sealed by tape



SCREED TYPE
40mm (min) proprietary screed

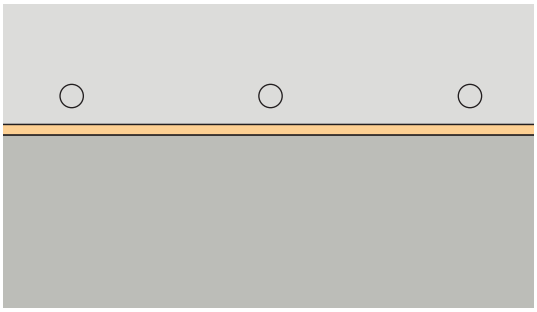
- Isorubber layer joints to be butt jointed
- Isorubber layer joints to be sealed by tape
- Polythene layer to be laid over whole floor overlapping joints

5. Underfloor heating systems within screeds

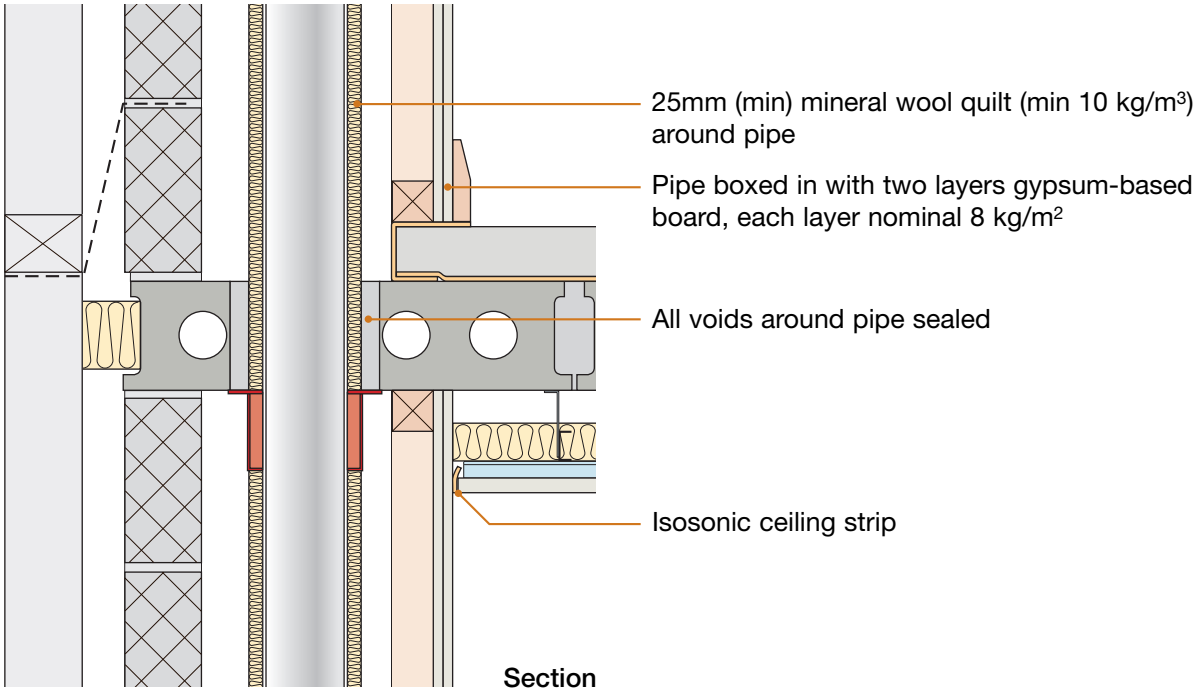
Underfloor heating systems (including connectors and fixings) installed within the screed must not penetrate the resilient layer or bridge the screed to the slab.

Underfloor heating systems which have a supporting layer/board may be laid on top of the Isorubber.

Appropriate screed depth cover to the heating system must be designed for – contact underfloor heating manufacturer for guidance.



6. Services – Service pipes through separating floor



Sketch shows CT0 type ceiling treatment

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Has training been received from Thermal Economics?			
2.	Are precast concrete planks 150mm (min) thick and of mass per unit area 300 kg/m^2 (min)?			
3.	Are inner leaves to external (flanking) walls of the correct block density?			
4.	Are joints between precast concrete planks grouted and sealed?			
5.	Are precast concrete planks built into the masonry walls?			
6.	Is the IsoEdge flanking strip installed for all room perimeters?			
7.	Are the Isorubber layer joints overlapped by 50mm and sealed with tape?			
8.	Is the Isorubber layer overlapping the IsoEdge flanking strip?			
9.	Are the skirting boards isolated from the screed by the IsoEdge flanking strip?			
10.	Are the Isosonic cleats installed with the pads against the precast planks?			
11.	Is Isosonic ceiling strip installed at ceiling perimeters?			
12.	Is 50mm (min) mineral wool quilt insulation 10 kg/m^3 (min) installed in the ceiling void?			
13.	Are all ceiling board joints sealed with tape or caulked with sealant?			
14.	Are service pipes wrapped in quilt and boxed in with two layers of nominal 8 kg/m^2 gypsum-based board?			
15.	Is separating floor satisfactorily complete?			

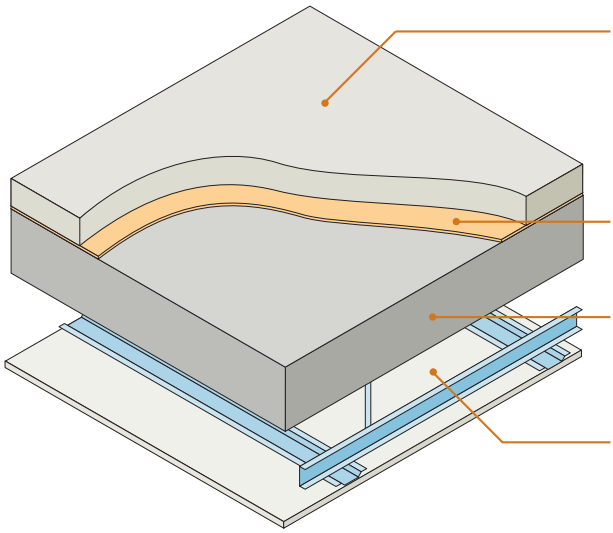
Contact details for technical assistance from Thermal Economics, manufacturer of Isorubber resilient layer system:

Telephone: 01582 544255 **Fax:** 01582 429305 **E-mail:** technical@thermal-economics.co.uk

Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Insitu concrete slab with flat soffit ■
For use in reinforced concrete frame construction ■
Bonded resilient floor covering, or screed laid on resilient layer system ■



Screed	65mm (min) cement:sand screed or 40mm (min) proprietary screed of nominal 80 kg/m² mass per unit area
Resilient layer	See list below and section 7, or see section 8 for bonded resilient floor coverings
Structural floor	225mm (min) insitu concrete floor slab, 2400 kg/m³ (min) density without screed
Ceiling	See section 9 for suitable ceiling treatment

Reinforced concrete frame construction - alternative external (flanking) wall construction

Storey height glazing units and external insulated cladding panels are an acceptable alternative to the cavity walls illustrated provided:

- Glazing units should not be continuous between storeys
- Mullion or transom supports/framing should not be continuous between dwellings
- Refer to Appendix A

Under-screed Resilient Layer systems

Only the following under-screed Resilient Layer systems may be used on E-FC-18 (see also Section 7):

- Thermal Economics Isorubber Base and IsoEdge Flanking Strip
- *Cellecta*® YELO*fon*® HD10+ and E-strip
- Icopal-MONARFLOOR® TRANQUILT® system
- Thermal Economics Isorubber HP3 and IsoEdge Flanking Strip
- InstaCoustic InstaLay 65
- Regupol Quietlay

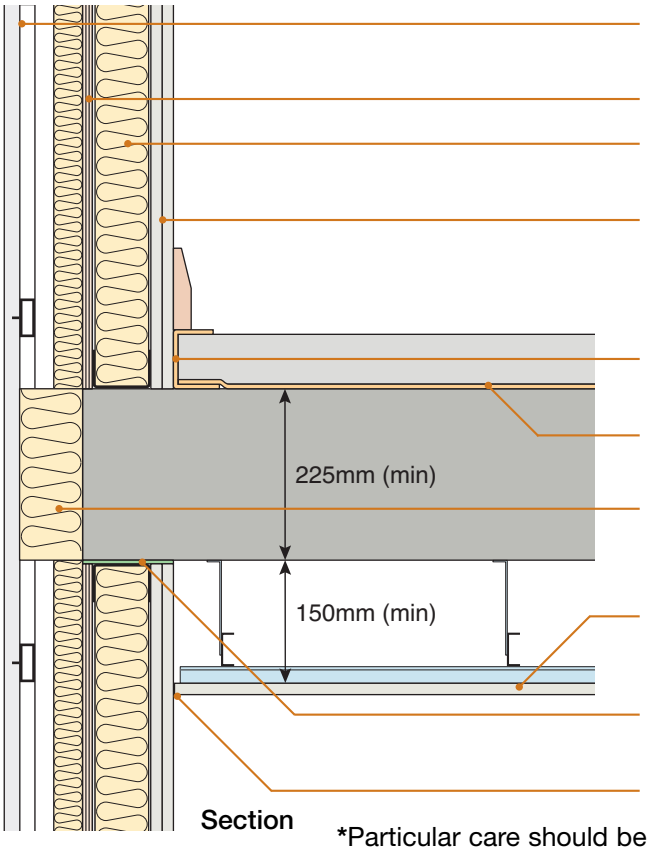
When using under-screed resilient layer systems:

- Ensure resilient layer is laid over the entire floor surface and has overlapped joints appropriately sealed with tape
- Ensure resilient layer overlaps with flanking strip and is taped and sealed at joints. On no account should the screed come into contact with the floor slab or perimeter walls
- Ensure the flanking strip isolates the skirting and wall linings. On no account should the screed come into contact with the wall lining and skirting
- Refer to Section 7 for details of installation, and requirements for proprietary screeds
- Refer to Appendix A

Bonded Resilient floor coverings

Refer to Section 8 for bonded resilient floor covering requirements

1. External (flanking) wall junction – lightweight external

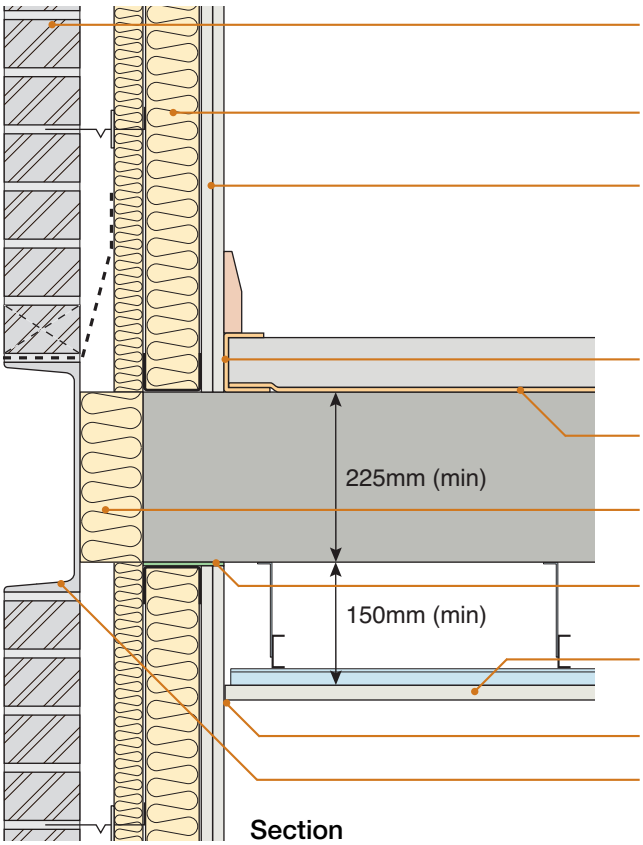


Section

- Glazing, render board or cladding system* spaced off inner leaf
- Cavity sheathing board
- Inner leaf – 75mm (min) metal stud with min 50mm mineral wool min 10 kg/m³
- 2 or more layers of gypsum-based board combined nominal mass per unit area 20 kg/m² all joints staggered
- Flanking strip must overlap with resilient layer and isolate screed from perimeter walls and skirtings
- Resilient layer must have appropriately overlapped joints and be sealed with tape (see Section 7)
- For the purposes of limiting flanking sound transmission, cavity closers whether full or partial are acceptable
- Ceiling lining minimum 1 layer nominal 10 kg/m² gypsum-based board
- All voids between slab and inner leaf filled with flexible closer or sealant
- Seal all perimeter joints with tape or caulk with sealant

*Particular care should be taken in respect of Buiding Regulations Part B Fire

2. External (flanking) wall junction – masonry outer leaf

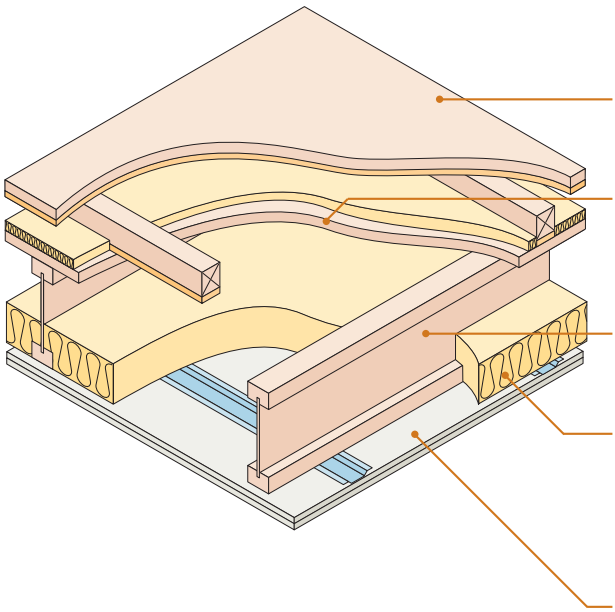


Section

- Masonry outer leaf or precast panels
- Inner leaf – 75mm (min) metal stud with min 50mm mineral wool min 10 kg/m³
- 2 or more layers of gypsum-based board combined nominal mass per unit area 20 kg/m² all joints staggered
- Flanking strip must overlap with resilient layer and isolate screed from perimeter walls and skirtings
- Resilient layer must have appropriately overlapped joints and be sealed with tape (see Section 7)
- Cavity barrier MUST close off the void
- All voids between slab and inner leaf filled with flexible closer or sealant
- Ceiling lining minimum 1 layer nominal 10 kg/m² gypsum-based board
- Seal all perimeter joints with tape or caulk with sealant
- Optional steel ‘feature channel’

Separating Floor – Timber I-Joists E-FT-1

Timber I-Joists ■
Use with timber frame walls only ■



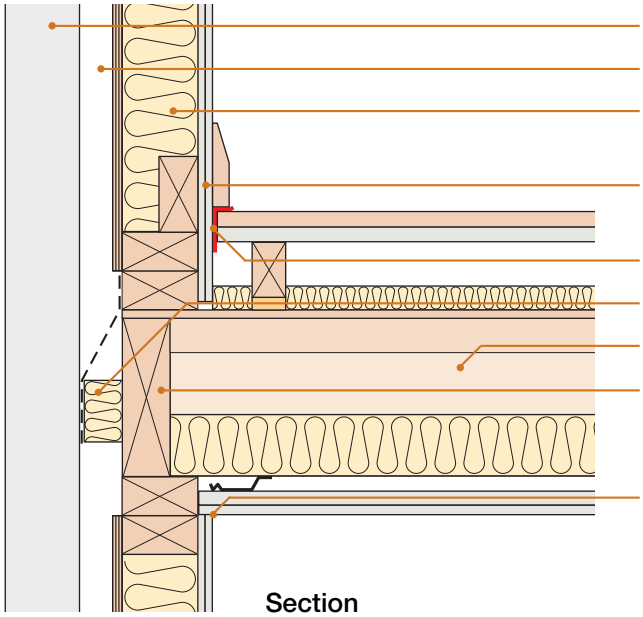
Floating floor	See section 6 for suitable floating floor treatment
Floor decking	15mm thick (min) wood based board, density 600 kg/m³ (min)
Joists	235mm (min) timber I-Joists
Absorbent material	100mm (min) mineral wool quilt insulation (10–36 kg/m³) or Cellecta MICRO 50 between joists
Ceiling	See section 5 for suitable ceiling treatment

Note: Structural framing details may vary slightly between different manufacturers and this is permitted, however, all dimension specifications within this Robust Detail must be adhered to.

DO

- Lay quilt between all joists, including doubled up I-joists, ensuring no gaps remain
- Ensure floating floor treatment is suitable and is installed in accordance with the manufacturer's instructions
- Ensure quilt is laid between and not under flooring battens
- Install flanking strips around the perimeter of the flooring board to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure timber floor ceiling treatment is either CT1, CT2 or CT3 and is fixed correctly (see page 4)
- Stagger joints in ceiling layers
- Refer to Appendix A

1. External (flanking) wall junction



Masonry outer leaf

External wall cavity (min 50mm)

Mineral wool insulation 10 kg/m³ (min); 70mm (min) EPS or foil faced PIR with no gaps

Two layers gypsum-based board nominal 8 kg/m² each layer

5mm (min) resilient flanking strip

Close cavity with a cavity stop (see Appendix A)

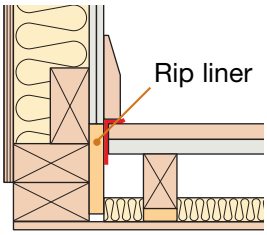
Joists may span in either direction

Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall

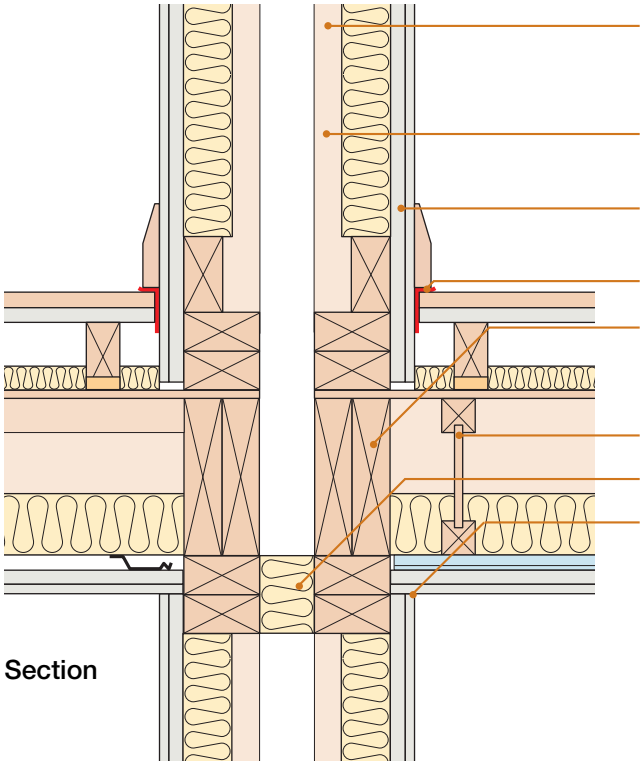
Seal all perimeter joints with tape or caulk with sealant

Section

Alternative detail



2. Separating wall junction



If using robustdetails® for wall - refer to Table 3b in introduction to select an appropriate robustdetails® separating wall

If using wall requiring pre-completion testing - seek specialist advice

Two layers gypsum-based board total nominal mass per unit area 22 kg/m² both sides

5mm (min) resilient flanking strip

Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall

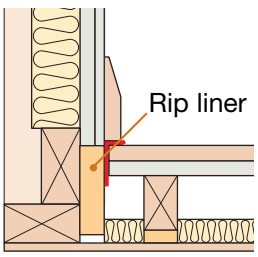
Joists may span in either direction

Close cavity with a cavity stop (see Appendix A)

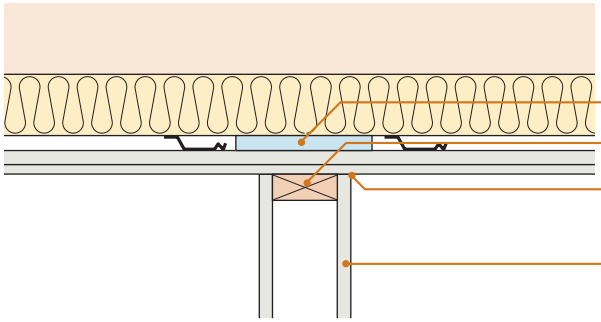
Seal all perimeter joints with tape or caulk with sealant

Section

Alternative detail



3. Internal wall junction (non loadbearing)

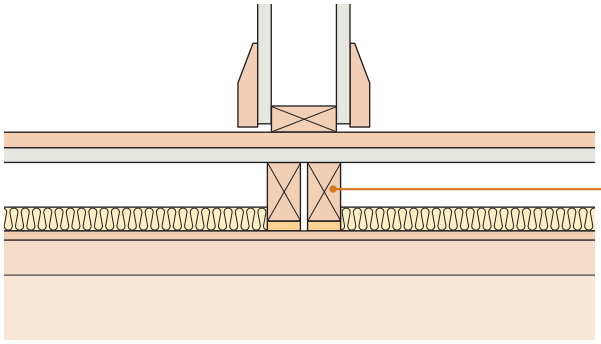


Resilient bar nogging

Headplate fixed to resilient bar nogging

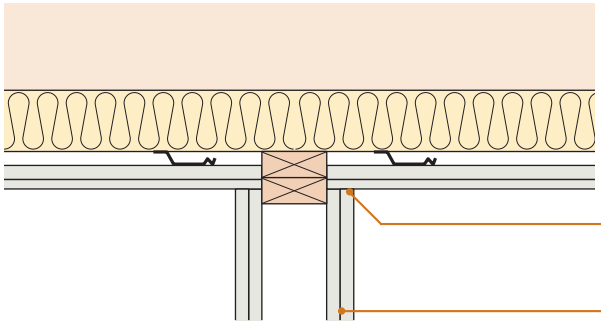
Seal all perimeter joints with tape or caulk with sealant

Where required internal wall to comply with Building Regulations Requirement E2



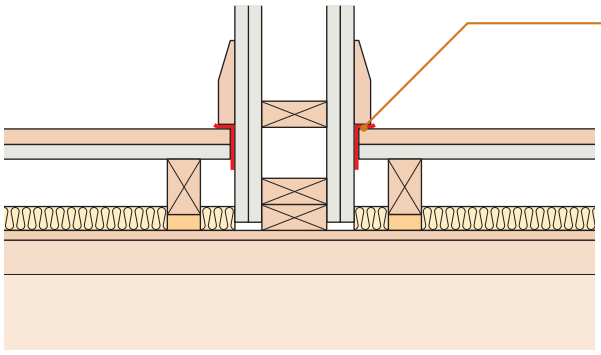
Additional support to partition (see Appendix A)

4. Internal wall junction (loadbearing)

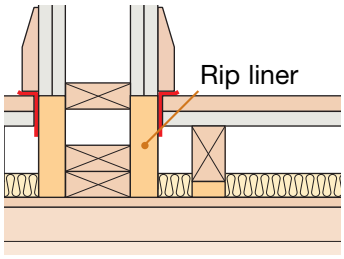


Seal all perimeter joints with tape or caulk with sealant

Where required internal wall to comply with Building Regulations Requirement E2



5mm (min) resilient flanking strip



Rip liner

Alternative detail

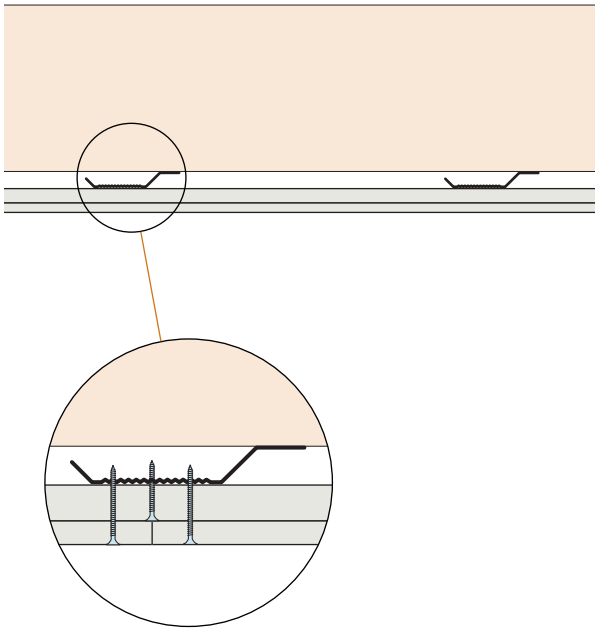
5. Ceiling treatment for E-FT-1

Timber floor ceiling treatment must be either CT1, CT2 or CT3 (see below). All joints to outer layers of ceiling must be sealed with tape or caulked with sealant.

The maximum load on resilient bars should not exceed that specified in the manufacturer's instructions.

Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)



Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room unless the use of a greater density of light fittings is supported by testing undertaken in accordance with Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

Note: Only downlighters which have been satisfactorily assessed in accordance with the procedure described in Appendix F "*Determination of the acoustic performance of downlighters and recessed lighting in timber separating floors*" are acceptable.

CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

16mm (min) resilient bars with CT1 and CT2

16mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) – see Appendix E

Ceiling treatment CT1

Two layers of gypsum-based board, composed of 19mm (nominal 13.5 kg/m²) fixed with 32mm screws, and 12.5mm (nominal 10 kg/m²) fixed with 42 mm screws

Ceiling treatment CT2

Two layers of gypsum-based boards composed of 15mm (nominal 12.5 kg/m²) fixed with 25mm screws and second layer of 15mm gypsum-based board (nominal 12.5 kg/m²) fixed with 42mm screws

25mm (min) resilient bars with CT3

25mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) - see Appendix E

Ceiling treatment CT3

Two layers of gypsum-based board, composed of 10mm (nominal 12kg/m²) fixed with 30mm screws and second layer of 10mm (nominal 12kg/m²) fixed with 30mm screws

6. Floating floor treatment for E-FT-1

Floating floor treatment:

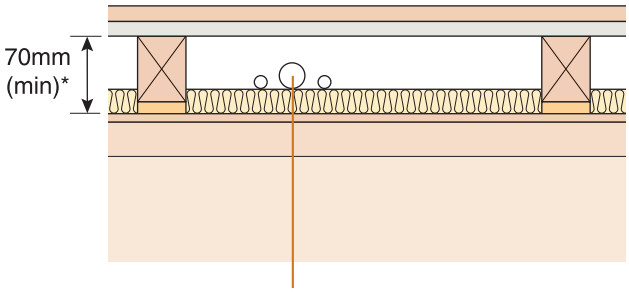
a) Must achieve a minimum laboratory performance of rd $\Delta R_w + C_{tr} = 13$dB and rd $\Delta L_w = 15$dB - see Appendix C.

b) Must be installed in accordance with the manufacturer's instructions.

c) Require 5mm (min) resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirting.

d) For further guidance on floating floor treatments and flanking strips, please refer to Appendix A.

* Note - void dimension indicated is when floor is loaded to 25 kg/m^2.



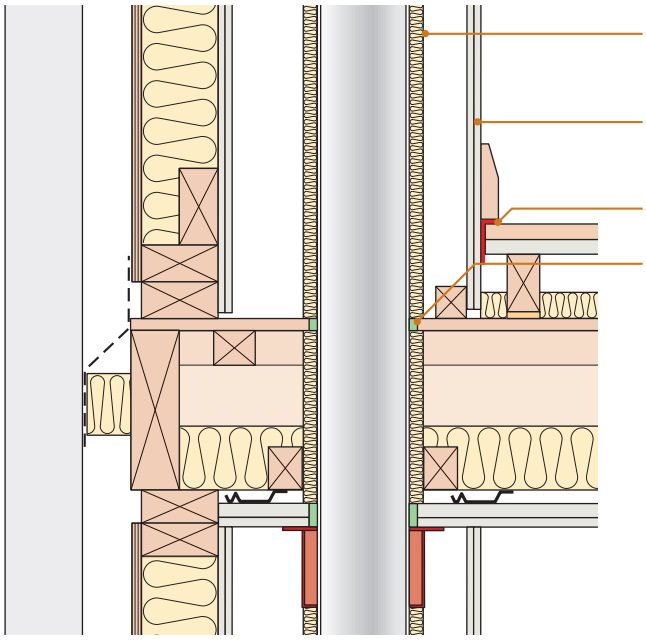
FFT1 – Resilient composite deep batten system for E-FT-1

- 18 mm (min) t&g flooring board
- gypsum-based board nominal 13.5 kg/m^2
- FFT1 resilient composite deep battens
- resilient layer must be continuous and pre-bonded to batten
- battens may have the resilient layer at the top or the bottom
- mineral wool quilt laid between battens
  – 13mm (min) 33-36 kg/m^3, or
  – 25mm (min) 10-36 kg/m^3
  or Cellecta MICRO 15
- ensure any services do not bridge the resilient layer

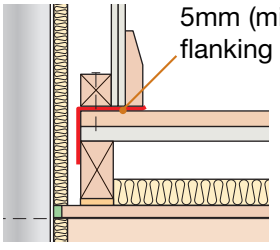
Cellecta HiDECK Structural system

- refer to Appendix A3

7. Services – pipes through separating floor



Section



Alternative detail

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

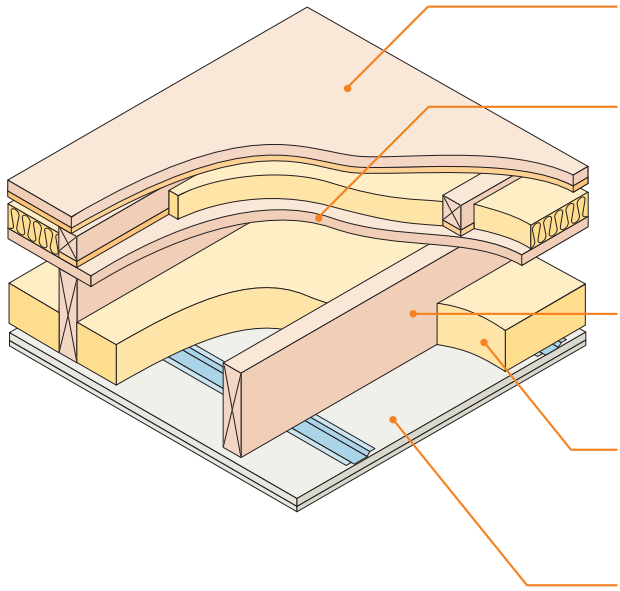
Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Are timber I-Joists at least 235mm deep?			
2.	Has the specified quilt been fitted between the joists?			
3.	Are resilient ceiling bars fitted at right angles to the joists?			
4.	Has ceiling system been fitted in accordance with the manufacturer's instructions?			
5.	Has floating floor treatment been fitted in accordance with the manufacturer's instructions?			
6.	Has the specified quilt been fitted between the floor battens?			
7.	Is ceiling treatment CT1, CT2 or CT3 fixed to the resilient bars with correct screws, such that the screws do not touch or penetrate the joists?			
8.	Are all joints sealed with tape or caulked with sealant?			
9.	Are vertical service pipes wrapped in quilt and boxed in with two layers of gypsum-based board combined nominal mass per unit area of 16 kg/m^2?			
10.	Have all resilient flanking strips been fitted?			
11.	Is separating floor satisfactorily complete?			

Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Separating Floor – Timber Solid Joists E-FT-2

Timber Solid Joists ■
Use with timber frame walls only ■



Floating floor	See section 6 for suitable floating floor treatment
Floor decking	11mm thick (min) wood based board, density 600 kg/m³ (min) or Walker Timber perforated deck system
Joists	220mm (min) solid timber joists at maximum 400mm centres
Absorbent material	100mm (min) mineral wool quilt insulation (10–36 kg/m³) or Cellecta MICRO 50 between joists
Ceiling	See section 5 for suitable ceiling treatment

For wider joist centres

Joist spacings may be increased to maximum 600mm centres provided:

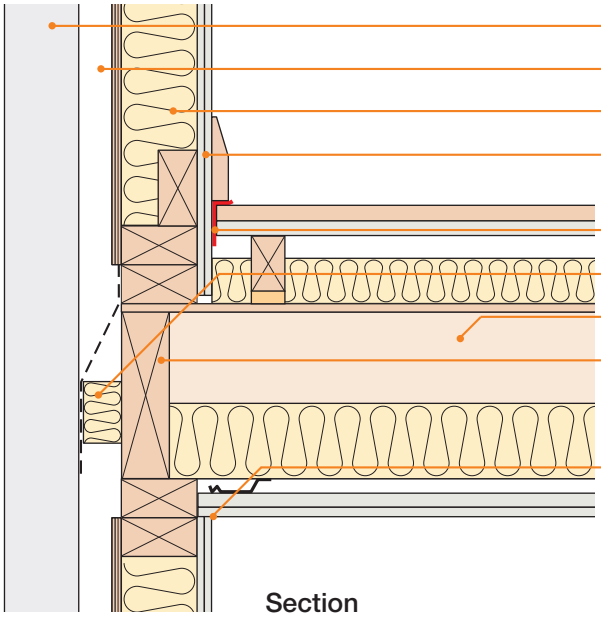
- joist depth is 240mm (min) and
- floor decking is minimum 15mm thick

Note: Structural framing details may vary slightly between different manufacturers and this is permitted, however, all dimension specifications within this Robust Detail must be adhered to.

DO

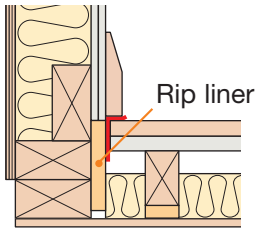
- Lay quilt between joists ensuring no gaps remain
- Ensure floating floor treatment is suitable and is installed in accordance with the manufacturer's instructions
- Ensure sub-deck quilt is laid between and not under flooring battens
- Install flanking strips around the perimeter of the flooring board to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure timber floor ceiling treatment is either CT1, CT2 or CT3 and is fixed correctly (see page 4)
- Stagger joints in ceiling layers
- Refer to Appendix A

1. External (flanking) wall junction



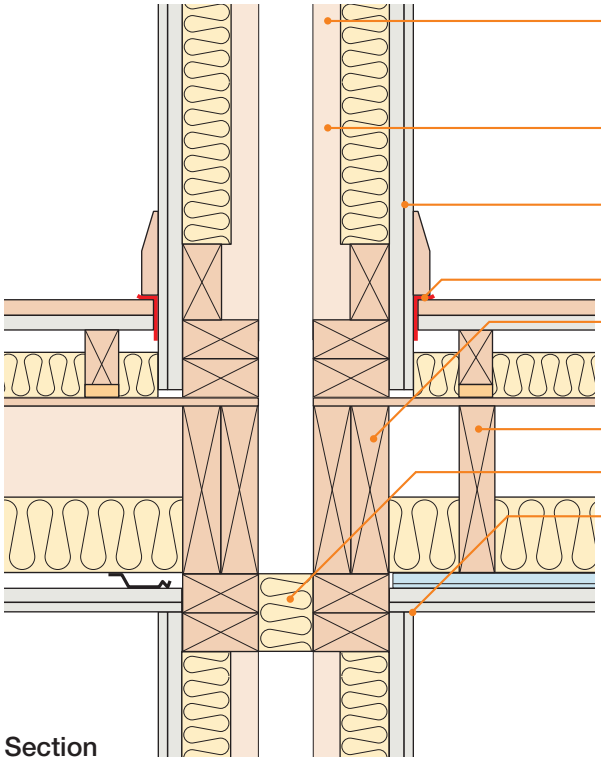
Section

- Masonry outer leaf
- External wall cavity (min 50mm)
- Mineral wool insulation 10 kg/m³ (min)
- Two layers gypsum-based board nominal 8 kg/m² each layer
- 5mm (min) resilient flanking strip
- Close cavity with a cavity stop (see Appendix A)
- Joists may span in either direction
- Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall
- Seal all perimeter joints with tape or caulk with sealant



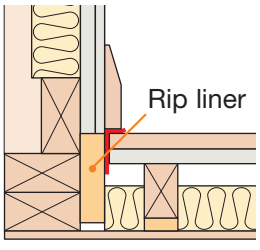
Alternative detail

2. Separating wall junction



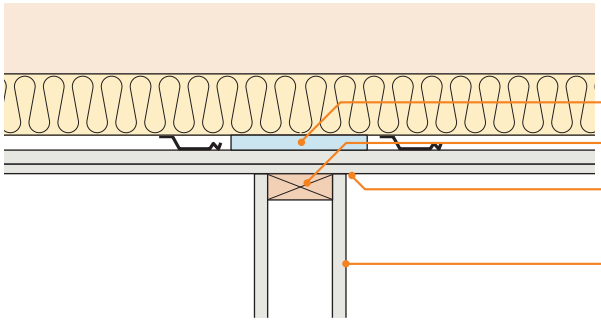
Section

- If using robustdetails® for wall - refer to Table 3b in introduction to select an appropriate robustdetails® separating wall
- If using wall requiring pre-completion testing - seek specialist advice
- Two layers gypsum-based board total nominal mass per unit area 22 kg/m² both sides
- 5mm (min) resilient flanking strip
- Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall
- Joists may span in either direction
- Close cavity with a cavity stop (see Appendix A)
- Seal all perimeter joints with tape or caulk with sealant



Alternative detail

3. Internal wall junction (non loadbearing)

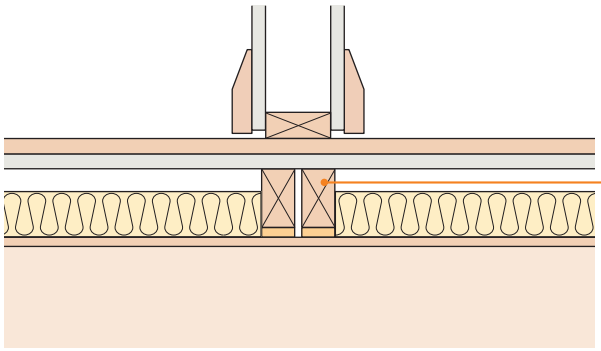


Resilient bar nogging

Headplate fixed to resilient bar nogging

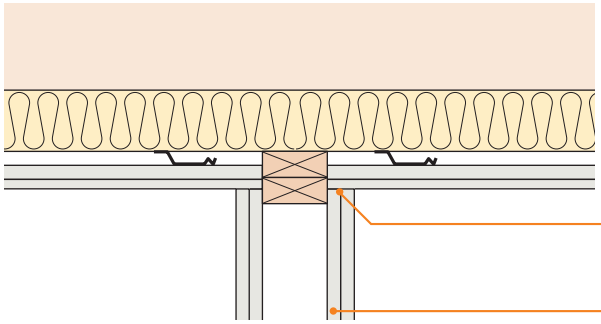
Seal all perimeter joints with tape or caulk with sealant

Where required internal wall to comply with Building Regulations Requirement E2



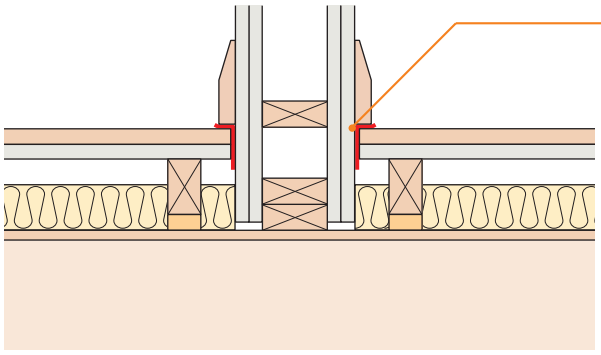
Additional support to partition (see Appendix A)

4. Internal wall junction (loadbearing)



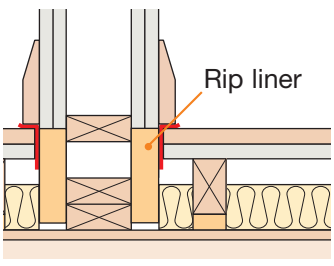
Seal all perimeter joints with tape or caulk with sealant

Where required internal wall to comply with Building Regulations Requirement E2



5mm (min) resilient flanking strip

Alternative detail



Rip liner

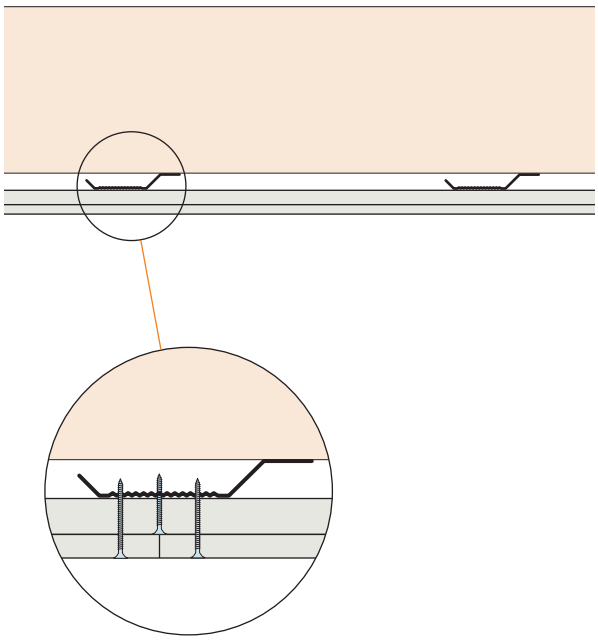
5. Ceiling treatment for E-FT-2

Timber floor ceiling treatment must be either CT1, CT2 or CT3 (see below). All joints to outer layers of ceiling must be sealed with tape or caulked with sealant.

The maximum load on resilient bars should not exceed that specified in the manufacturer's instructions.

Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)



Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room unless the use of a greater density of light fittings is supported by testing undertaken in accordance with Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

Note: Only downlighters which have been satisfactorily assessed in accordance with the procedure described in Appendix F *"Determination of the acoustic performance of downlighters and recessed lighting in timber separating floors"* are acceptable.

CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

16mm (min) resilient bars with CT1 and CT2

16mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) – see Appendix E

Ceiling treatment CT1

Two layers of gypsum-based board, composed of 19mm (nominal 13.5 kg/m²) fixed with 32mm screws, and 12.5mm (nominal 8 kg/m²) fixed with 42 mm screws

Ceiling treatment CT2

Two layers of gypsum-based boards composed of 15mm (nominal 12.5 kg/m²) fixed with 25mm screws and second layer of 15mm gypsum-based board (nominal 12.5 kg/m²) fixed with 42mm screws

25mm (min) resilient bars with CT3

25mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) - see Appendix E

Ceiling treatment CT3

Two layers of gypsum-based board, composed of 10mm (nominal 12 kg/m²) fixed with 30mm screws and second layer of 10mm (nominal 12 kg/m²) fixed with 30mm screws

6. Floating floor treatment for E-FT-2

Floating floor treatment:

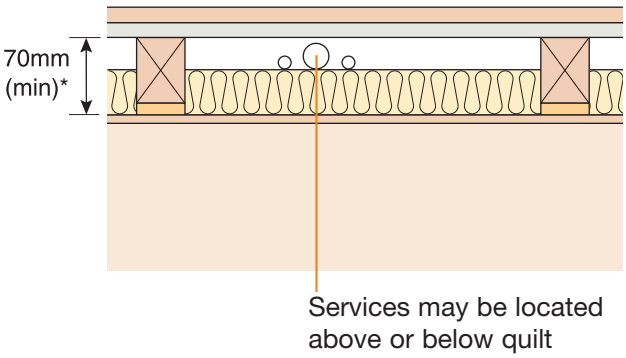
a) Must achieve a minimum laboratory performance of rd $\Delta R_w + C_{tr} = 13$dB and rd $\Delta L_w = 15$dB - see Appendix C.

b) Must be installed in accordance with the manufacturer's instructions.

c) Require 5mm (min) resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirting.

d) For further guidance on floating floor treatments and flanking strips, please refer to Appendix A.

* Note - void dimension indicated is when floor is loaded to 25 kg/m^2.



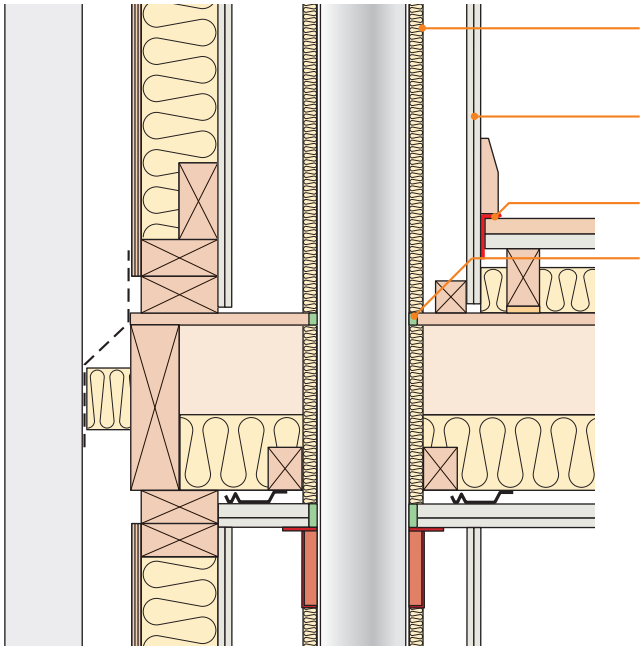
FFT1 – Resilient composite deep batten system for E-FT-2

- 18 mm (min) t&g flooring board
- gypsum-based board nominal 13.5 kg/m^2
- FFT-1 resilient composite deep battens
- resilient layer must be continuous and pre-bonded to batten
- battens may have the resilient layer at the top or the bottom
- 60mm (min) 10-36 kg/m^3 mineral wool quilt laid between battens
- ensure any services do not bridge the resilient layer

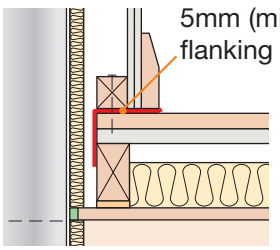
Cellecta HiDECK Structural system

- refer to Appendix A3

7. Services – pipes through separating floor



Section



Alternative detail

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

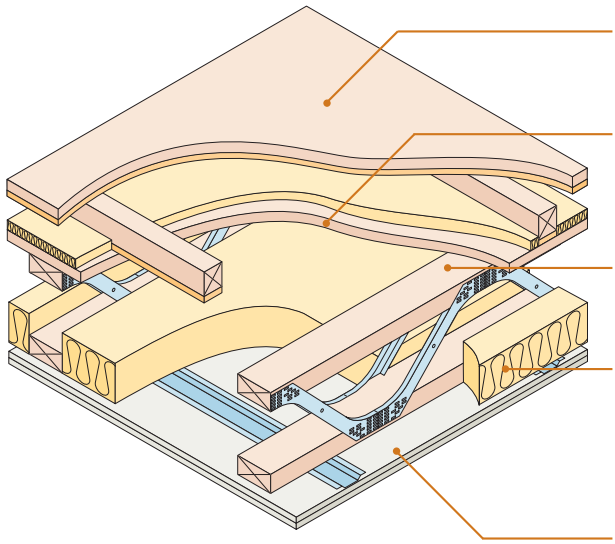
Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Are solid timber joists at least 220mm deep, or at least 240mm deep if joists installed at greater than 400mm centres?			
2.	Has the specified quilt been fitted between the joists?			
3.	Are resilient ceiling bars fitted at right angles to the joists?			
4.	Has ceiling system been fitted in accordance with the manufacturer's instructions?			
5.	Is floor decking 11mm thick (min); or 15mm thick (min) if joists at greater than 400mm centres?			
6.	Has floating floor treatment been fitted in accordance with the manufacturer's instructions?			
7.	Has the specified quilt been fitted between the floor battens?			
8.	Is ceiling treatment CT1, CT2 or CT3 fixed to the resilient bars with correct screws such that the screws do not touch or penetrate the joists?			
9.	Are all joints sealed with tape or caulked with sealant?			
10.	Are vertical service pipes wrapped in quilt and boxed in with two layers of gypsum-based board combined nominal mass per unit area of 16 kg/m^2?			
11.	Have all resilient flanking strips been fitted?			
12.	Is separating floor satisfactorily complete?			

Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Separating Floor – Metal Web Joists E-FT-3

Timber flange and metal web joists ■
Use with timber frame walls only ■



Floating floor	See section 10 for suitable floating floor treatment
Floor decking	18mm thick (min) wood based board, density min 600 kg/m^3
Joists	253mm (min) metal web joists (see joist type below)
Absorbent material	100mm (min) mineral wool quilt insulation (10–36 kg/m^3) or Cellecta MICRO 50 between joists
Ceiling	See section 9 for suitable ceiling treatment

Joist type

IMPORTANT

Only the following metal web joists may be used in E-FT-3:

- MiTek Posi-Joist
- Prestoplan PresWeb
- WOLF easi-joist
- ITW Gang-Nail Ecojoist
- ITW Alpine SpaceJoist

Notes:

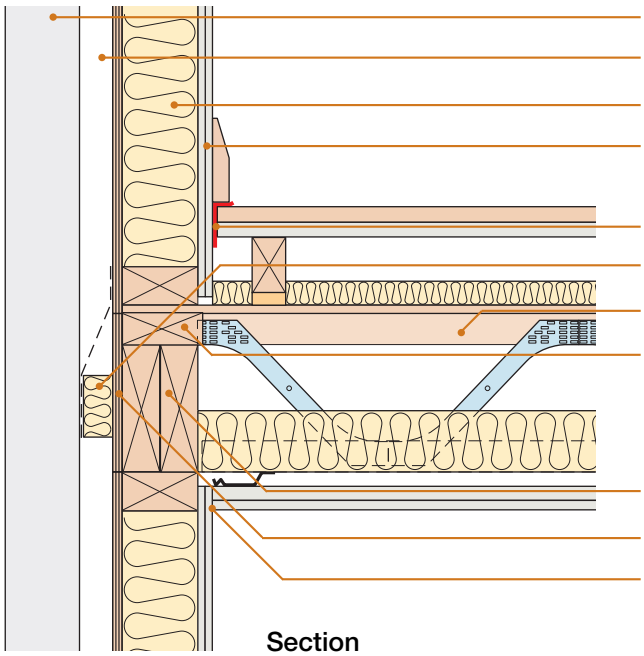
Although single header and sole plates are indicated, increasing the number of header and sole plates would be acceptable, however, all dimension specifications within this Robust Detail must be adhered to.

Metal web joists can be **top chord/flange** supported or **fully built-in** and supported on the panel and this is permitted, however, all dimension specifications within this Robust Detail must be adhered to.

DO

- Ensure correct metal web joists are being used (see joist type)
- Lay quilt between joists ensuring no gaps remain
- Ensure floating floor treatment is suitable and is installed in accordance with the manufacturer's instructions (See page 7)
- Ensure quilt within floating floor is laid between and not under flooring battens
- Install resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure timber floor ceiling treatment is fixed correctly (see page 6)
- Stagger joints in ceiling layers
- Refer to Appendix A

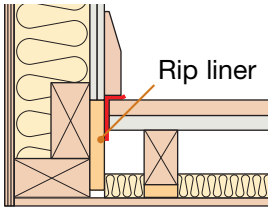
1. External (flanking) wall junction (top chord supported)



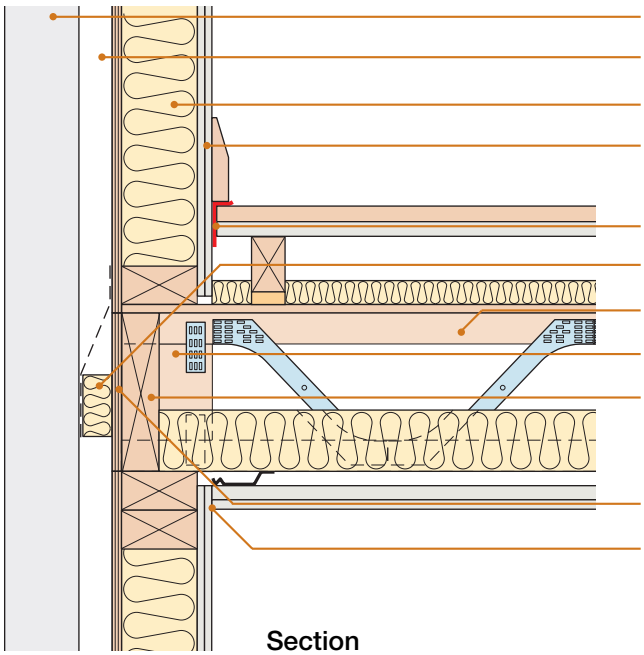
- Masonry outer leaf
- External wall cavity (min 50mm)
- Mineral wool insulation 10 kg/m³ (min)
- Two layers gypsum-based board nominal 8 kg/m² each layer
- 5mm (min) resilient flanking strip
- Close cavity with a cavity stop (see Appendix A)
- Joists may span in either direction
- Softwood timber infill between supporting top chords/flanges of joists built into frame to support floor (Bottom chord not built into frame)
- Ring beams packed to stud width
- Site fixed sheathing board for depth of floor
- Seal all perimeter joints with tape or caulk with sealant

Section

Alternative detail



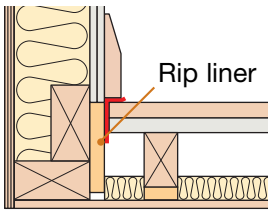
2. External (flanking) wall junction (fully built-in)



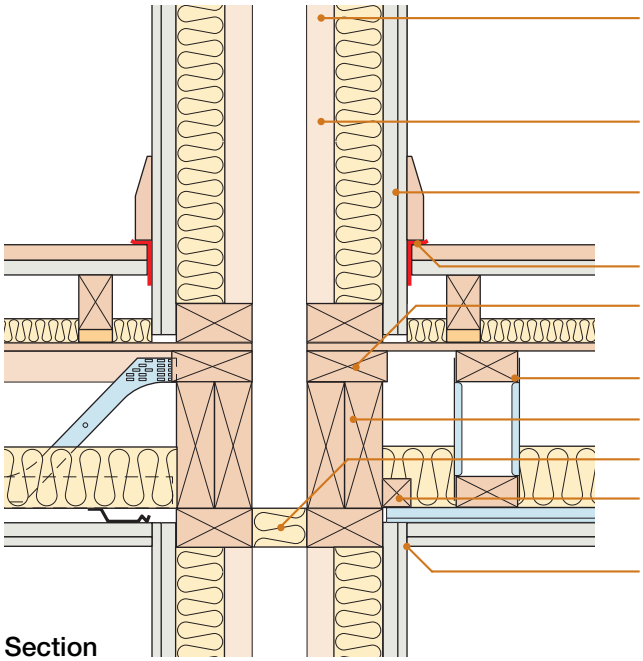
- Masonry outer leaf
- External wall cavity (min 50mm)
- Mineral wool insulation 10 kg/m³ (min)
- Two layers gypsum-based board nominal 8 kg/m² each layer
- 5mm (min) resilient flanking strip
- Close cavity with a cavity stop (see Appendix A)
- Joists may span in either direction
- Trimmable blocking to end of joist
- Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall
- Site fixed sheathing board for depth of floor
- Seal all perimeter joints with tape or caulk with sealant

Section

Alternative detail

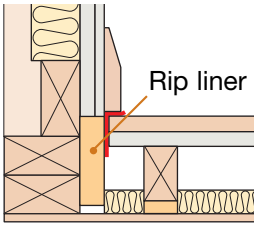


3. Separating wall junction (top chord supported)



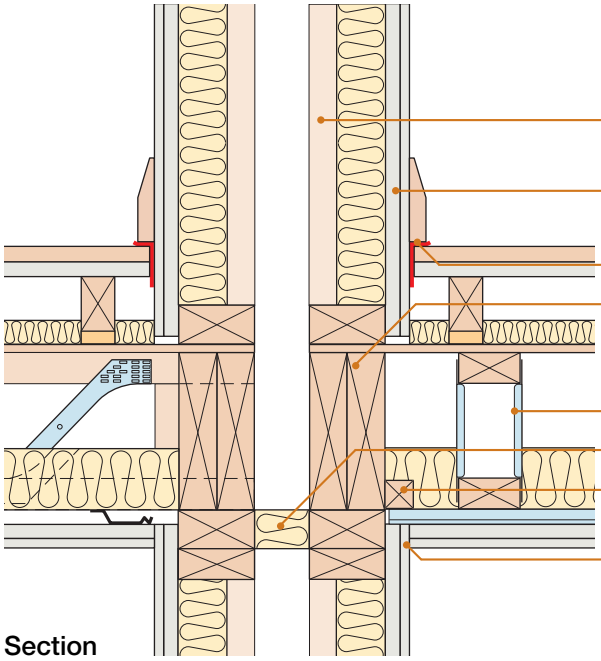
Section

- If using robustdetails® for wall - refer to Table 3b in introduction to select an appropriate robustdetails® separating wall
- If using wall requiring pre-completion testing - seek specialist advice
- Two layers gypsum-based board total nominal mass per unit area 22 kg/m² both sides
- 5mm (min) resilient flanking strip
- Softwood timber infill between supporting top chords/flanges of joists
- Joists may span in either direction
- Ring beams packed to stud width
- Close cavity with a cavity stop (see Appendix A)
- Softwood timber nogging for resilient bar support (leave a small gap at end of resilient bar)
- Seal all perimeter joints with tape or caulk with sealant



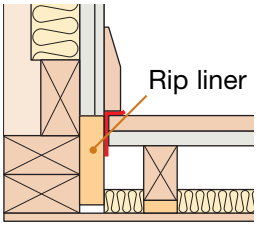
Alternative detail

4. Separating wall junction (fully built-in)



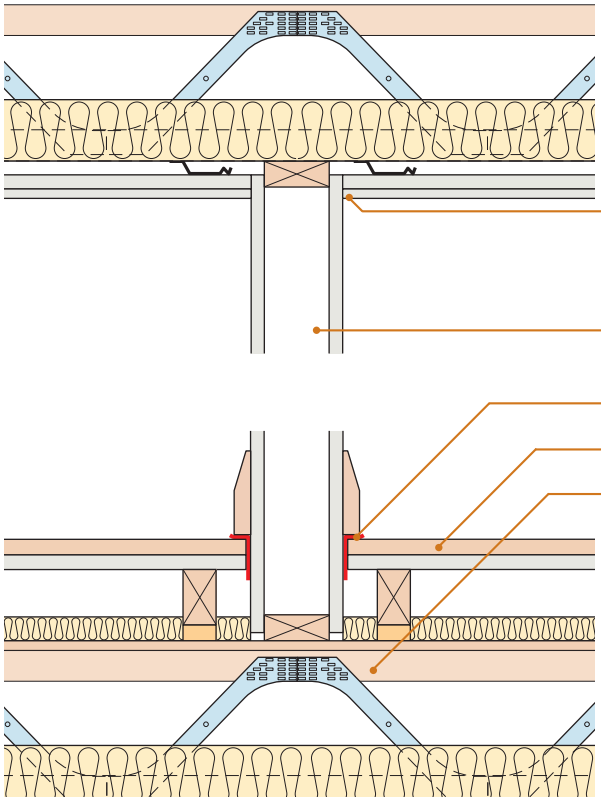
Section

- If using robustdetails® for wall - refer to Table 3b in introduction to select an appropriate robustdetails® separating wall
- If using wall requiring pre-completion testing - seek specialist advice
- Two layers gypsum-based board total nominal mass per unit area 22 kg/m² both sides
- 5mm (min) resilient flanking strip
- Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall
- Joists may span in either direction
- Close cavity with a cavity stop (see Appendix A)
- Softwood timber nogging for resilient bar support (leave a small gap at end of resilient bar)
- Seal all perimeter joints with tape or caulk with sealant



Alternative detail

5. Non loadbearing internal wall perpendicular to joists



Seal all perimeter joints with tape or caulk with sealant

Where required internal wall to comply with Building Regulations Requirement E2

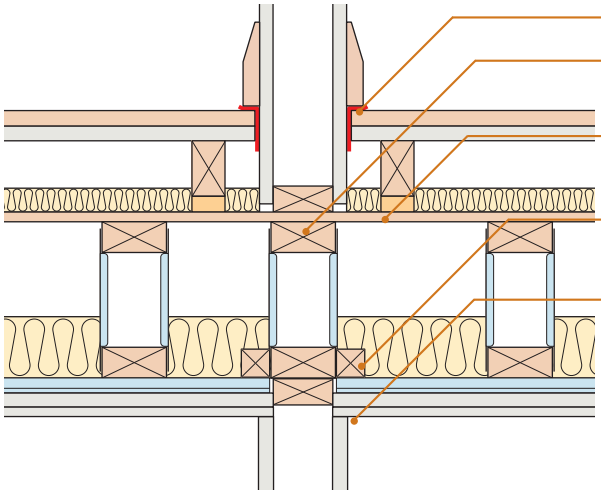
5mm (min) resilient flanking strip

Floating floor

Metal web joist (see joist type, page 1)

*Note - non loadbearing partitions may also be taken directly off the floating floor treatment, check with manufacturer's instructions for installation (see Appendix A)

6. Non loadbearing internal wall parallel to joists



5mm (min) resilient flanking strip

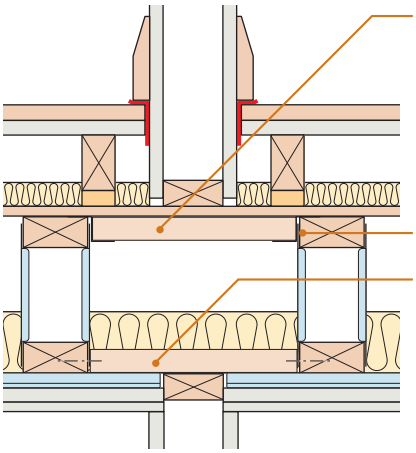
Extra metal web joist (see joist type, page 1) under internal wall

Floor decking

Softwood timber noggings for resilient bar support (leave a small gap at end of resilient bar)

Seal all perimeter joints with tape or caulk with sealant

*Note - non loadbearing partitions may also be taken directly off the floating floor treatment, check with manufacturer's instructions for installation (see Appendix A)



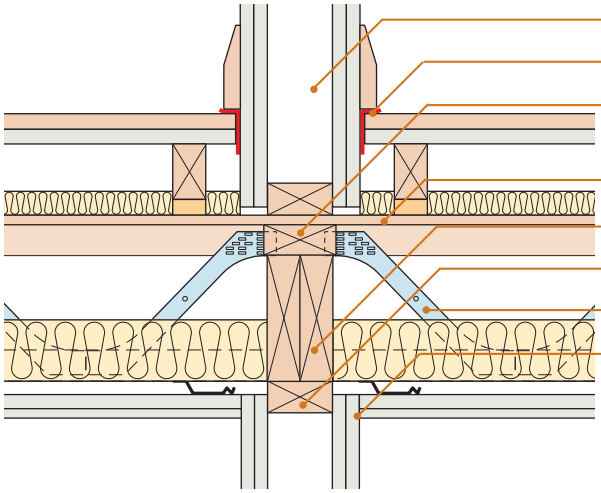
89 x 38mm (min) noggings hung on Z Clips at each end at 600mm c/c (max)

Z Clip

Partition head noggings at 400mm c/c to support resilient bar

Alternative detail

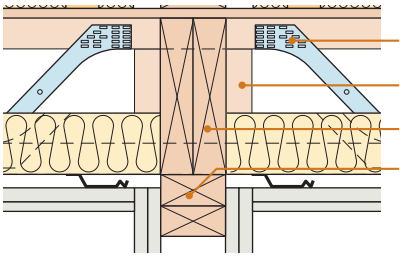
7. Loadbearing internal wall perpendicular to joists



- Internal loadbearing wall
- 5mm (min) resilient flanking strip
- Softwood timber infill between supporting top chords/flanges where required
- Floor decking
- Internal wall beams
- Headplate fixed to internal wall beams
- Metal web joist (see joist type, page 1)
- Seal all perimeter joints with tape or caulk with sealant

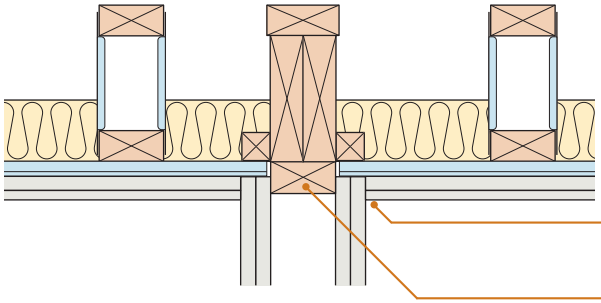
Note: Detail shows top chord/flange supported

Alternative detail

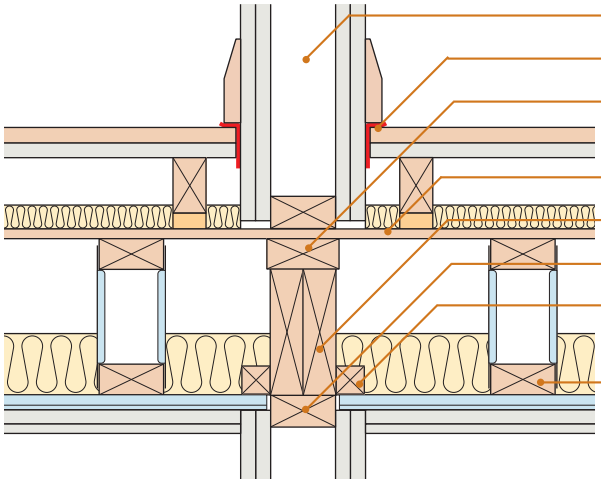


- Metal web joist (see joist type, page 1)
- Timber blocking to joist
- Internal wall beam
- Headplate fixed to internal wall beams

8. Loadbearing internal wall parallel to joists



- Seal all perimeter joints with tape or caulk with sealant
- Headplate fixed to internal wall beams



- Internal loadbearing wall
- 5mm (min) resilient flanking strip
- Softwood timber infill between supporting top chords/flanges where required
- Floor decking
- Internal wall beams
- Headplate fixed to internal wall beams
- Softwood timber noggings for resilient bar support (leave a small gap at end of resilient bar)
- Metal web joist (see joist type, page 1)

Note: Detail shows top chord/flange supported

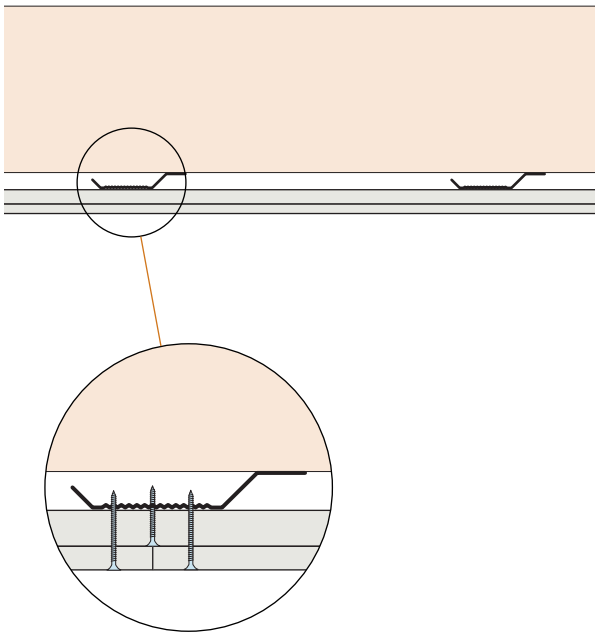
9. Ceiling treatment for E-FT-3

Timber floor ceiling treatment must be either CT1, CT2 or CT3 (see below). All joints to outer layers of ceiling must be sealed with tape or caulked with sealant.

The maximum load on resilient bars should not exceed that specified in the manufacturer's instructions.

Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)



Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room unless the use of a greater density of light fittings is supported by testing undertaken in accordance with Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

Note: Only downlighters which have been satisfactorily assessed in accordance with the procedure described in Appendix F "*Determination of the acoustic performance of downlighters and recessed lighting in timber separating floors*" are acceptable.

CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

16mm (min) resilient bars with CT1 and CT2

16mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) – see Appendix E

Ceiling treatment CT1

Two layers of gypsum-based board, composed of 19mm (nominal 13.5 kg/m²) fixed with 32mm screws, and 12.5mm (nominal 10 kg/m²) fixed with 42 mm screws

Ceiling treatment CT2

Two layers of gypsum-based boards composed of 15mm (nominal 11.7 kg/m²) fixed with 25mm screws and second layer of 15mm gypsum-based board (nominal 11.7 kg/m²) fixed with 42mm screws

25mm (min) resilient bars with CT3

25mm (min) metal resilient ceiling bars mounted at right angles to the joists at 400mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) - see Appendix E

Ceiling treatment CT3

Two layers of gypsum-based board, composed of 10mm (nominal 12kg/m²) fixed with 30mm screws and second layer of 10mm (nominal 12kg/m²) fixed with 30mm screws

10. Floating floor treatment for E-FT-3

Floating floor treatment:

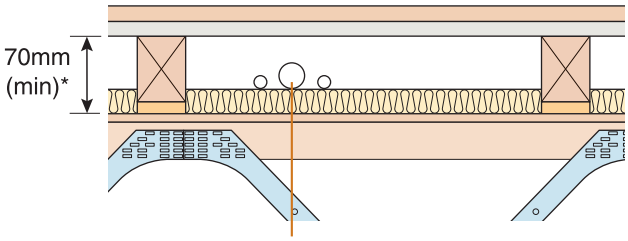
a) Must achieve a minimum laboratory performance of rd $\Delta R_w + C_{tr} = 13$dB and rd $\Delta L_w = 15$dB - see Appendix C.

b) Must be installed in accordance with the manufacturer's instructions.

c) Require 5mm (min) resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirting.

d) For further guidance on floating floor treatments and flanking strips, please refer to Appendix A.

* Note - void dimension indicated is when floor is loaded to 25 kg/m^2.



Services, where required, may be located above or below quilt

FFT1 – Resilient composite deep batten system for E-FT-3

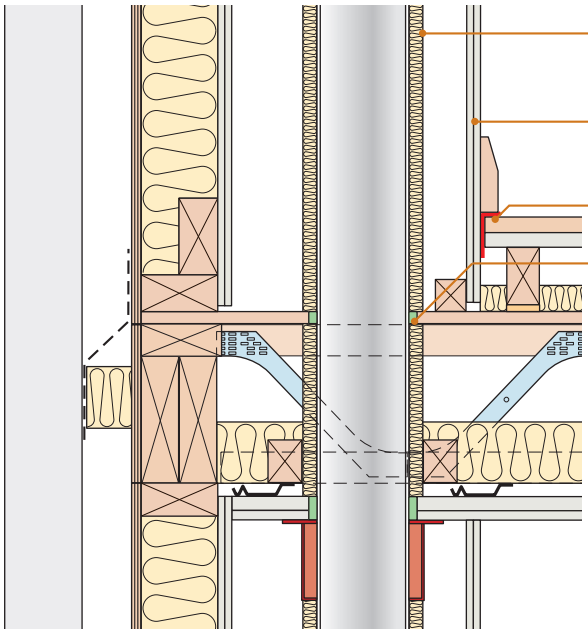
- 18 mm (min) t&g flooring board
- gypsum-based board nominal 13.5 kg/m^2
- FFT1 resilient composite deep battens
- battens may have the resilient layer at the top or the bottom
- mineral wool quilt laid between battens
  – 13mm (min) 33-36 kg/m^3, or
  – 25mm (min) 10-36 kg/m^3
  or Cellecta MICRO 15
- ensure any services do not bridge the resilient layer

* Note - Services may run within the floor zone (see Appendix A)

Cellecta HiDECK Structural system

- refer to Appendix A3

11. Services – pipes through separating floor



25mm (min) mineral wool quilt (10-36 kg/m^3) around pipe

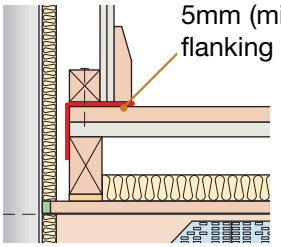
Pipe boxed in with two layers of gypsum-based board, combined nominal 16 kg/m^2

5mm (min) resilient flanking strip

All voids around pipe sealed

Section

Sketch shows top chord supported external (flanking) wall junction detail, for fully built-in arrangement see section 2



5mm (min) polyethylene foam flanking strip

Alternative detail

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

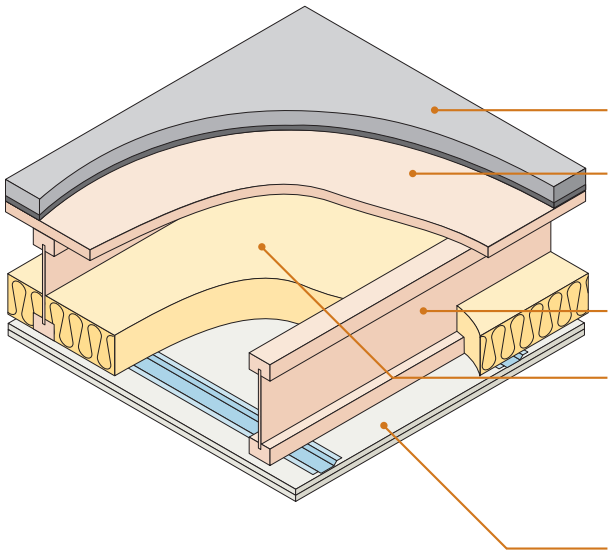
Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Are correct metal web joists being used (see page 1 of Robust Detail)?			
2.	Which of the permitted metal web joist types are being used?			
3.	Are joists at least 253mm deep?			
4.	Has the specified quilt been fitted between the joists?			
5.	Are resilient ceiling bars fitted at right angles to the joists?			
6.	Has ceiling system been fitted in accordance with the manufacturer's instructions?			
7.	Has floating floor treatment been fitted in accordance with the manufacturer's instructions?			
8.	Has the specified quilt been fitted between the floor battens?			
9.	Is ceiling treatment CT1, CT2 or CT3 fixed to the resilient bars with correct screws such that the screws do not touch or penetrate the joists?			
10.	Are all joints to gypsum-based boards sealed with tape or caulked with sealant?			
11.	Are vertical service pipes wrapped in quilt and boxed in with two layers of gypsum-based board combined nominal mass per unit area of 16 kg/m^2?			
12.	Have all resilient flanking strips been fitted?			
13.	Is separating floor satisfactorily complete?			

Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

Separating Floor – Timber I-Joists E-FT-5

Cellecta® ScreedBoard® 28 on timber sub-floor ■
Timber I-Joists ■
Use with timber frame walls only ■



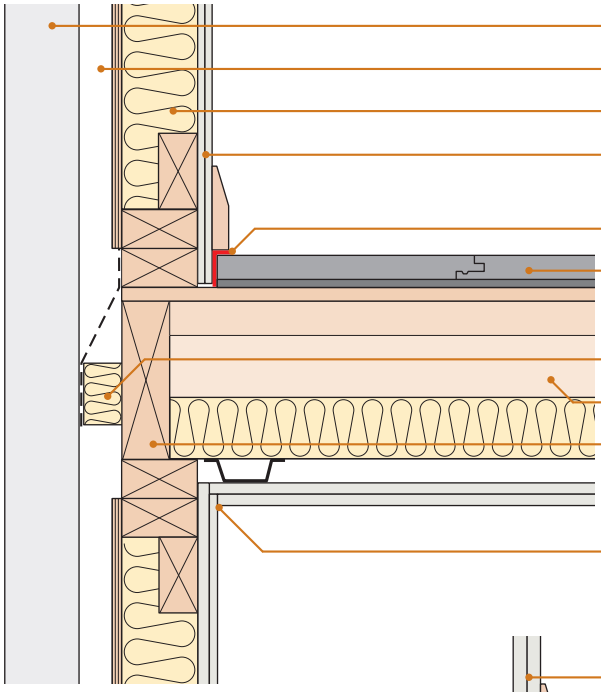
Floating floor	*Cellecta*® ScreedBoard® 28
Floor decking	18mm thick (min) wood based board, density 600 kg/m³ (min)
Joists	240mm (min) timber I-joist
Absorbent material	100mm (min) mineral wool quilt insulation (10–36 kg/m³) or Cellecta MICRO 50 between joists
Ceiling	See section 5 for ceiling treatment

Note: Structural framing details may vary slightly between different manufacturers and this is permitted, however, all dimension specifications within this Robust Detail must be adhered to.

DO

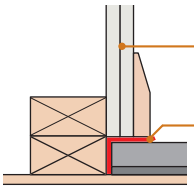
- Lay quilt (min 100mm thick) between all joists, including doubled up timber I-joists, ensuring no gaps remain
- Apply *Cellecta*® SB adhesive to all ScreedBoard® 28 decking joints
- Install *Cellecta*® YELO*fon*® FS50 flanking angle around the perimeter of the ScreedBoard® 28 to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure ceiling treatment is fixed correctly (see section 5)
- Stagger joints in ceiling layers
- Refer to Appendix A

1. External (flanking) wall junction



Masonry outer leaf
External wall cavity (min 50mm)
Mineral wool insulation 10 kg/m³ (min)
Two layers gypsum-based board nominal 8 kg/m² each layer
YELO*fon*® FS50 flanking angle
ScreedBoard® 28
Close cavity with a cavity stop (see Appendix A)
Joists may span in either direction
Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall
Seal all perimeter joints with tape or caulk with sealant

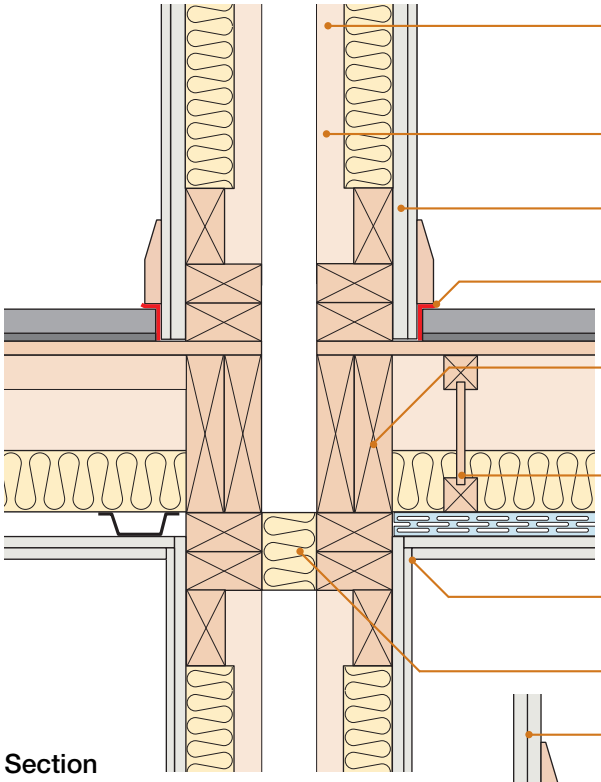
Section



Two layers gypsum-based board nominal 8 kg/m² each layer
YELO*fon*® FS50 flanking angle

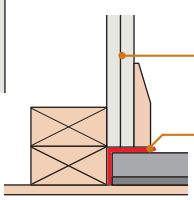
Alternative detail

2. Separating wall junction



If using robustdetails® for wall - refer to Table 3b in introduction to select an appropriate robustdetails® separating wall
If using wall requiring pre-completion testing - seek specialist advice
Two layers gypsum-based board total nominal mass per unit area 22 kg/m² both sides
YELO*fon*® FS50 flanking angle
Close spaces between floor joists with full depth timber blocking or continuous header joist where joists are at right angles to the wall
Joists may span in either direction
Seal all perimeter joints with tape or caulk with sealant
Close cavity with a cavity stop (see Appendix A)

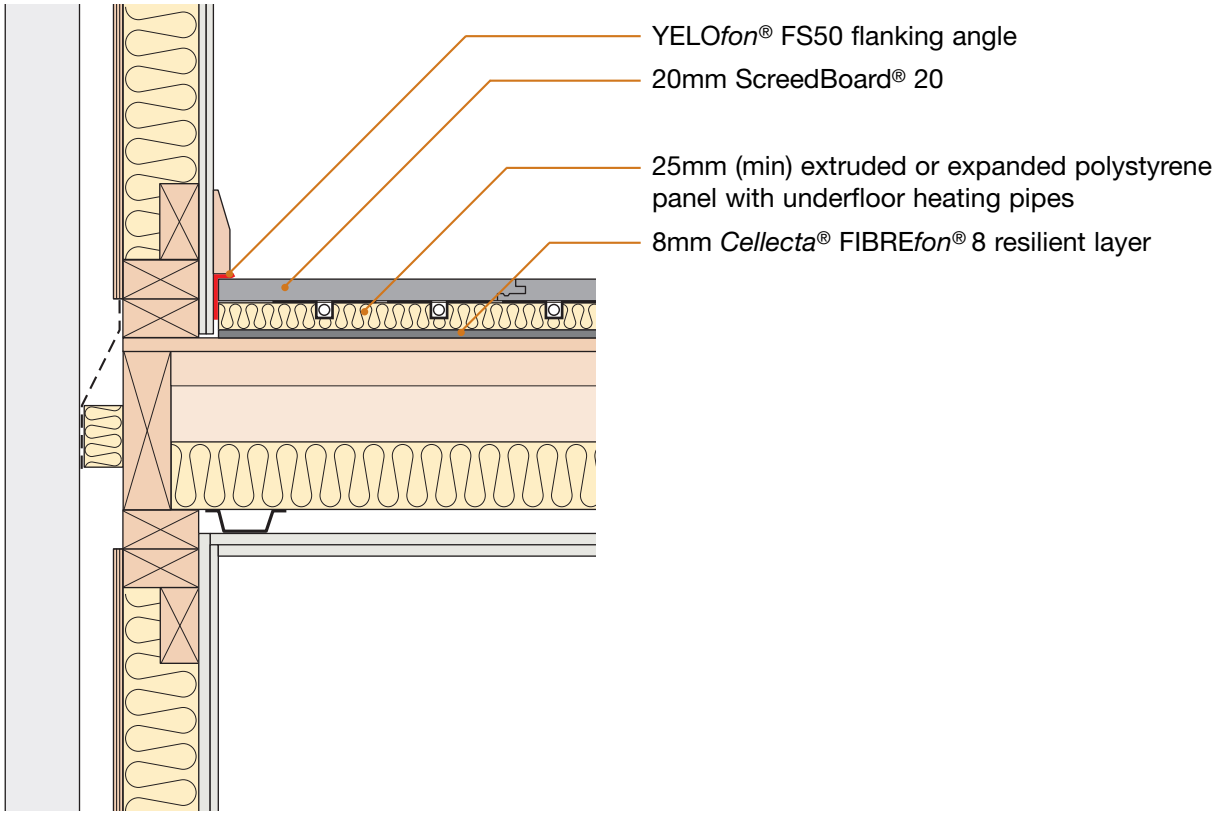
Section



Two layers gypsum-based board nominal 8 kg/m² each layer
YELO*fon*® FS50 flanking angle

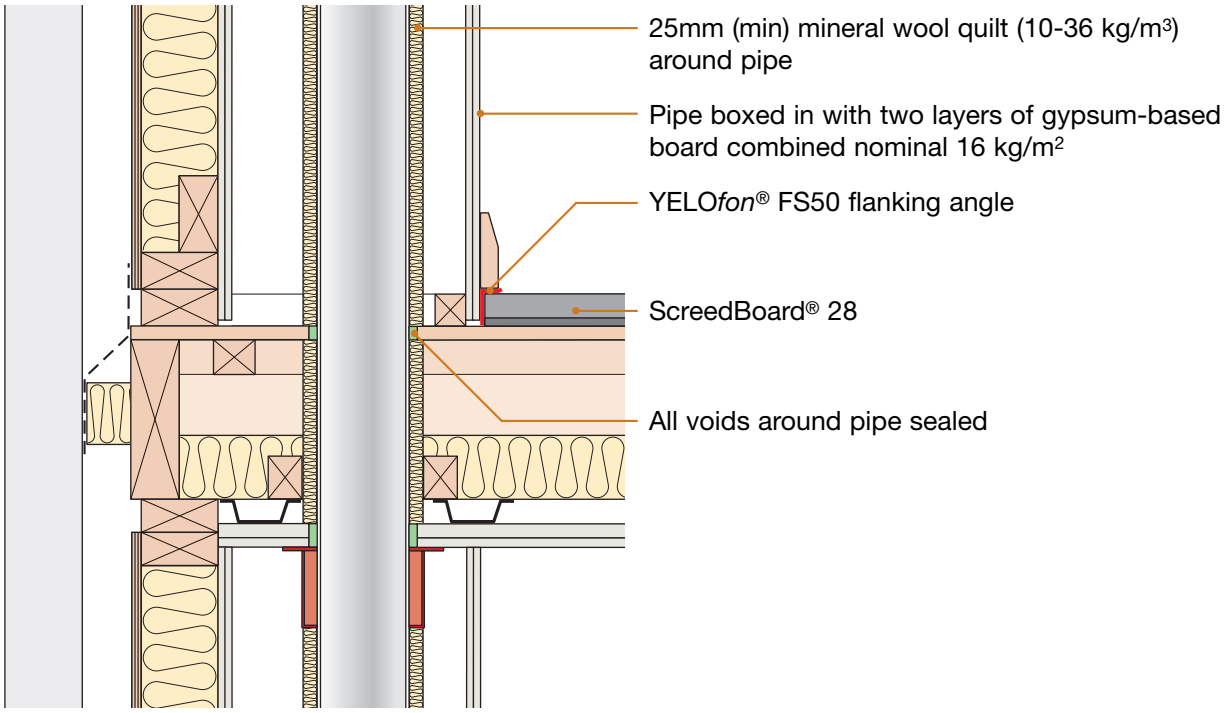
Alternative detail

6. Undefloor heating systems below ScreedBoard®



Section

7. Services – pipes through separating floor



Section

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Are timber I-joists minimum 240mm deep?			
2.	Is sub-deck minimum 18mm, 600 kg/m^3?			
3.	Are YELO*fon*® FS50 flanking angles installed correctly?			
4.	Has the ScreedBoard® 28 floating floor treatment been fitted in accordance with the manufacturer's instructions?			
5.	Where underfloor heating is used, is FIBRE*fon*® 8 installed in addition to the ScreedBoard® 20?			
6.	Are the correct type of resilient ceiling bars used and fitted, in accordance with the manufacturer's instructions, at right angles to the joists (*Cellecta*® HP30 bars must be used if second ceiling is not included)?			
7.	Has the specified quilt been fitted between the joists?			
8.	Are the ceiling treatments fixed to the resilient bars with correct screws, such that the screws do not touch or penetrate the joists?			
9.	For CT1 or CT2 is secondary ceiling void minimum 150mm?			
10.	Are all joints sealed with tape or caulked with sealant?			
11.	Are vertical service pipes wrapped in quilt and boxed in with two layers of gypsum-based board combined nominal mass per unit area of 16 kg/m^2?			
12.	Is separating floor satisfactorily complete?			

Contact details for technical assistance from *Cellecta*®, manufacturer of ScreedBoard® 28 system:

Telephone: 01634 296677 **Fax:** 01634 226630 **E-mail:** technical@cellecta.co.uk

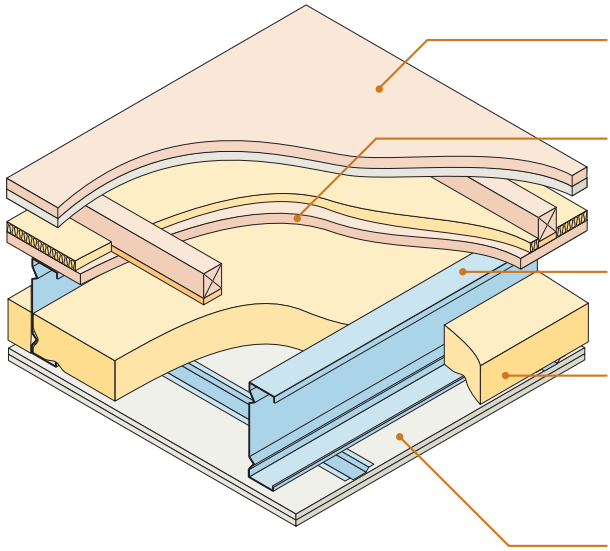
Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

®: UK registered trade mark no. 2291665

Separating Floor – UltraBEAM Metal Joists E-FS-2

Hadley Group UltraBEAM Metal Joists ■
Use with lightweight metal frame walls only ■

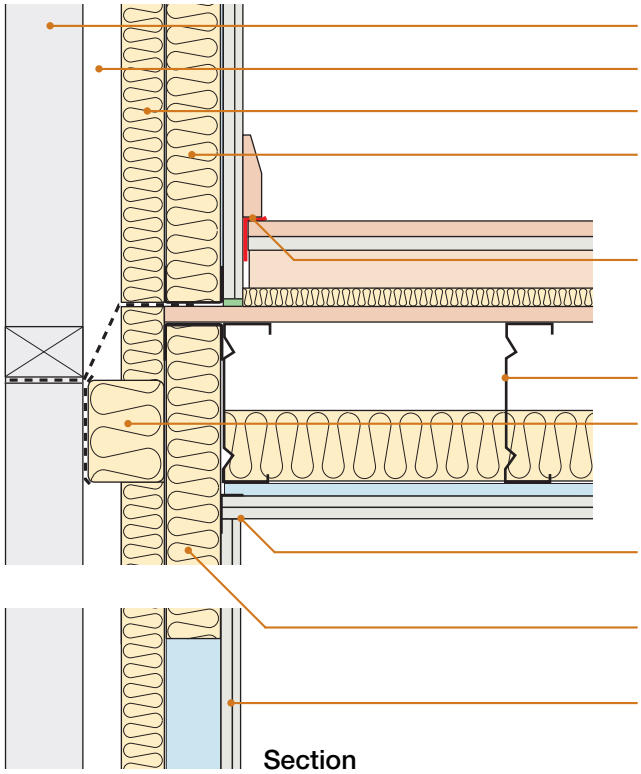


Floating floor	See section 6 for suitable floating floor treatment
Floor decking	22mm thick (min) wood based board, density 600 kg/m³ (min)
Joists	225mm (min) deep UltraBEAM metal joists
Absorbent material	100mm (min) mineral wool quilt insulation (10–36 kg/m³) or Cellecta MICRO 50 between joists
Ceiling	See section 5 for suitable ceiling treatment

DO

- Lay quilt between all joists, including doubled up joists, ensuring no gaps remain
- Ensure floating floor treatment is suitable and is installed in accordance with the manufacturer's instructions
- Ensure quilt is laid between and not under flooring battens
- Install flanking strips around the perimeter of the flooring board to isolate floor from walls and skirtings
- Ensure resilient ceiling bars are fixed at right angles to the joists
- Ensure ceiling treatment is fixed correctly (see page 4)
- Stagger joints in ceiling layers
- Refer to Appendix A

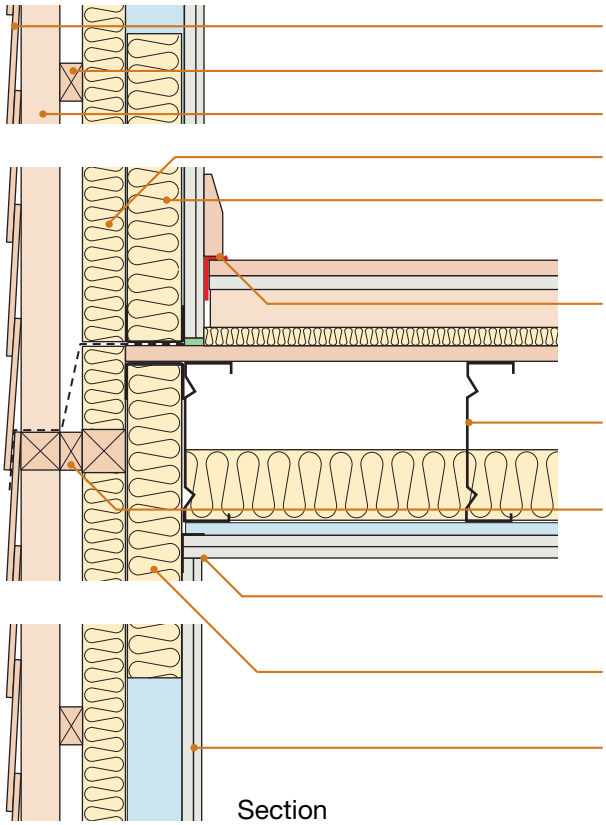
1. External (flanking) wall junction – masonry outer leaf



Section

- Masonry outer leaf (min 100mm thick)
- 25mm (min) cavity
- 55mm (min) rigid insulation board
- Mineral wool insulation batts, 33-60 kg/m^3, between studs to 600mm (min) above bottom rail of steel frame
- 5mm (min) resilient flanking strip installed at perimeter and turned under skirting board
- Joists may span in either direction
- Close cavity with a cavity stop (see Appendix A)
- Seal all perimeter joints with tape or caulk with sealant
- Mineral wool insulation batts, 33-60 kg/m^3, between studs to 600mm (min) below ceiling level
- Two layers gypsum-based board fixed to external steel frame nominal 20 kg/m^2 combined

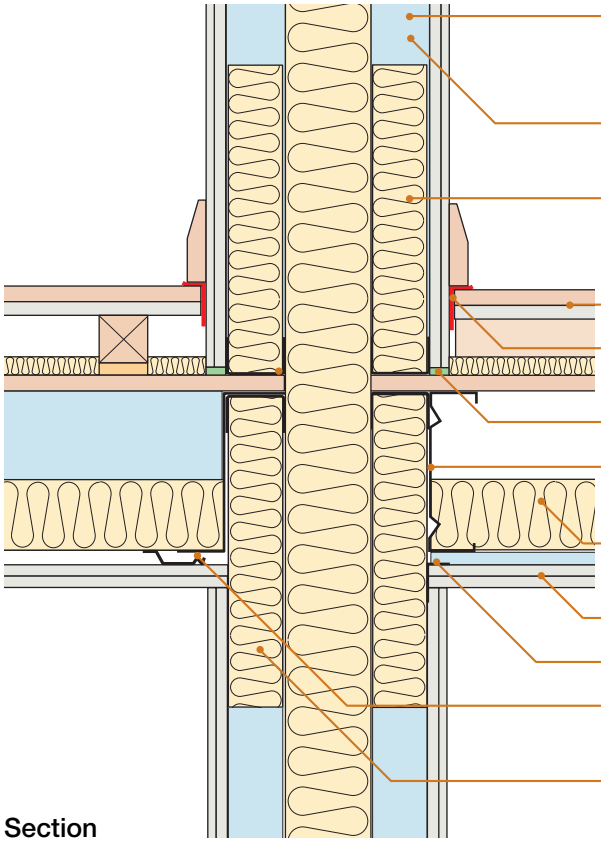
2. External (flanking) wall junction – timber cladding outer leaf



Section

- 8mm (min) weatherboard
- 50x50mm timber battens
- 25x50mm timber counterbattens
- 55mm (min) rigid insulation board
- Mineral wool insulation batts, 33-60 kg/m^3, between studs to 600mm (min) above bottom rail of steel frame
- 5mm (min) resilient flanking strip installed at perimeter and turned under skirting board
- Joists may span in either direction
- Close cavity with a cavity stop (see Appendix A)
- Seal all perimeter joints with tape or caulk with sealant
- Mineral wool insulation batts, 33-60 kg/m^3, between studs to 600mm (min) below ceiling level
- Two layers gypsum-based board fixed to steel frame nominal 20 kg/m^2 combined, joints to be staggered and taped

3. Separating wall junction



Section

If using robustdetails® for wall - refer to Table 3c in Introduction to select an appropriate robustdetails® separating wall

If using wall requiring pre-completion testing - seek specialist advice

Mineral wool insulation batts, 33-60 kg/m³, between studs to 600mm (min) above bottom rail of steel frame

Floating floor treatment (see section 6)

5mm (min) resilient flanking strips installed at perimeter and turned under skirting board

Flexible acoustic sealant below plasterboard

225mm (min) deep UltraBEAM metal joists with 22mm water resistant t&g floor decking

100mm mineral wool insulation quilt - 10-36 kg/m³ (min) or Cellecta MICRO 50

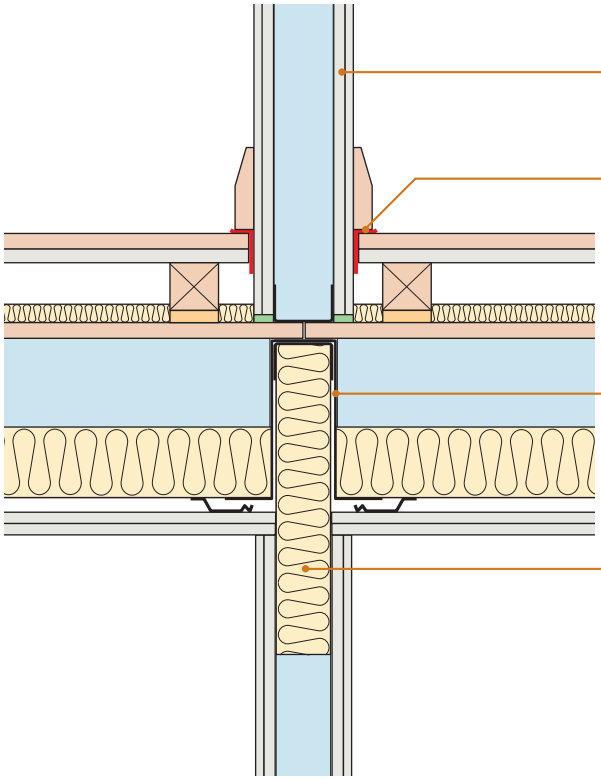
Ceiling treatment (see section 5)

Fixing angle

Resilient bar below joists at 450mm centres fixed through joist flange to manufacturer's detail

Mineral wool insulation batts, 33-60 kg/m³, between studs to 600mm (min) below decking level

4. Internal wall junction



2 layers of gypsum-based board nominal 20 kg/m² combined, joints to be staggered and taped

5mm (min) resilient flanking strip

Lipped 'Zed' floor support by Hadley Group

Mineral wool insulation batts, 33-60 kg/m³, between studs to 600mm (min) below decking level

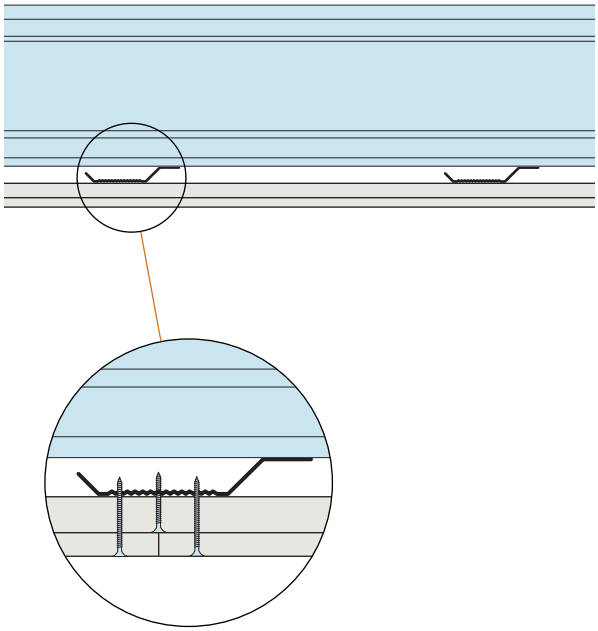
5. Ceiling treatment for E-FS-2

Metal floor ceiling treatment must be as shown below. All joints to outer layers of ceiling must be sealed with tape or caulked with sealant.

The maximum load on resilient bars should not exceed that specified in the manufacturer's instructions.

Ensure ceiling layers have staggered joints.

Services must not puncture ceiling linings (except cables, which should be sealed around with flexible sealant)



Downlighters and recessed lighting

Downlighters or recessed lighting may be installed in the ceiling:

- in accordance with the manufacturer's instructions
- at no more than one light per 2m² of ceiling area in each room unless the use of a greater density of light fittings is supported by testing undertaken in accordance with Appendix F
- at centres not less than 0.75m
- into openings not exceeding 100mm diameter or 100x100mm

Particular attention should also be paid to Building Regulations Part B - Fire Safety

Note: Only downlighters which have been satisfactorily assessed in accordance with the procedure described in Appendix F "*Determination of the acoustic performance of downlighters and recessed lighting in lightweight separating floors*" are acceptable.

CEILING BOARD FIXINGS MUST NOT PENETRATE OR TOUCH JOISTS

16mm (min) resilient bars with CT1 and CT2

16mm (min) metal resilient ceiling bars mounted at right angles to the joists at 450mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) – see Appendix E

Ceiling treatment CT1

Two layers of gypsum-based board, composed of 19mm (nominal 13.5 kg/m²) fixed with 32mm screws, and 12.5mm (nominal 10 kg/m²) fixed with 42 mm screws

Ceiling treatment CT2

Two layers of gypsum-based boards composed of 15mm (nominal 12.5 kg/m²) fixed with 25mm screws and second layer of 15mm gypsum-based board (nominal 12.5 kg/m²) fixed with 42mm screws

25mm (min) resilient bars with CT3

25mm (min) metal resilient ceiling bars mounted at right angles to the joists at 450mm centres (bars must achieve a minimum laboratory performance of rdΔRw+Ctr=17dB and rdΔLw=16dB) - see Appendix E

Ceiling treatment CT3

Two layers of gypsum-based board, composed of 10mm (nominal 12kg/m²) fixed with 30mm screws and second layer of 10mm (nominal 12kg/m²) fixed with 30mm screws

6. Floating floor treatment for E-FS-2

Floating floor treatment:

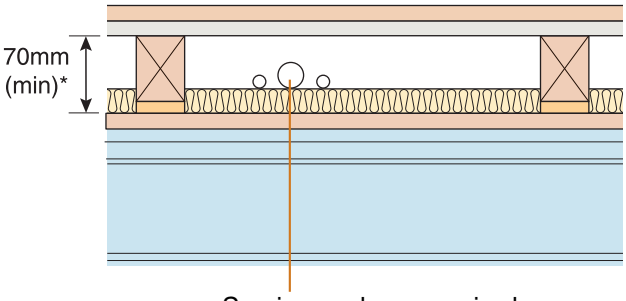
a) Must achieve a minimum laboratory performance of rd $\Delta R_w + C_{tr} = 13$dB and rd $\Delta L_w = 15$dB - see Appendix C.

b) Must be installed in accordance with the manufacturer's instructions.

c) Require 5mm (min) resilient flanking strips around the perimeter of the flooring board to isolate floor from walls and skirting.

d) For further guidance on floating floor treatments and flanking strips, please refer to Appendix A.

* Note - void dimension indicated is when floor is loaded to 25 kg/m^2.



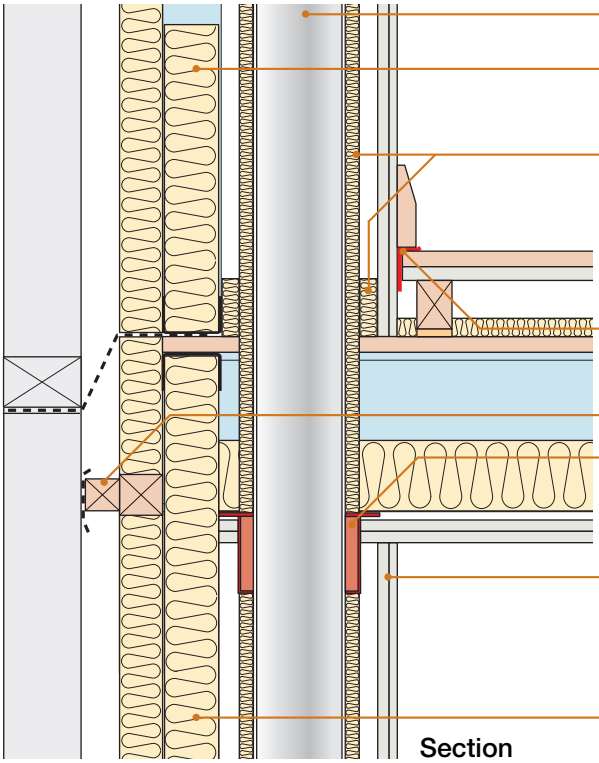
FFT1 – Resilient composite deep batten system

- 22 mm (min) t&g flooring board
- gypsum-based board nominal 13.5 kg/m^2
- FFT1 resilient composite deep battens
- resilient layer must be continuous and pre-bonded to batten
- battens may have the resilient layer at the top or the bottom
- mineral wool quilt laid between battens
  – 13mm (min) 33-36 kg/m^3, or
  – 25mm (min) 10-36 kg/m^3
  or Cellecta MICRO 15
- ensure any services do not bridge the resilient layer

Cellecta HiDECK Structural system

- refer to Appendix A3

7. Services – pipes through separating floor



Section

Service pipe

Mineral wool insulation batts, 33-60 kg/m^3, between studs of steel frame

25mm mineral fibre quilt insulation (10-36kg/m^3) installed around the complete perimeter of the service pipe. Where the service pipe penetrates the separating floor, all voids are to be packed with insulation quilt

5mm (min) resilient flanking strips installed at perimeter and turned under skirting board

Close cavity with a cavity stop (see Appendix A)

Proprietary fire collar fitted around pipe and fixed to underside of steel joists

2 layers of gypsum-based board nominal 20 kg/m^2 combined fixed to 45mm metal frame stud forming duct. Joints to be staggered and taped

Mineral wool insulation batts, 33-60 kg/m^3, between studs to 600mm (min) below ceiling level

CHECKLIST (to be completed by site manager/supervisor)

Company:

Site:

Plot: Site manager/supervisor:

Ref.	Item	Yes (✔)	No (✔)	Inspected (initials & date)
1.	Are UltraBEAM metal joists at least 225mm deep?			
2.	Has the specified quilt been fitted between the joists?			
3.	Are resilient ceiling bars fitted at right angles to the joists?			
4.	Has ceiling system been fitted in accordance with the manufacturer's instructions?			
5.	Has floating floor treatment been fitted in accordance with the manufacturer's instructions?			
6.	Has the specified quilt been fitted between the floor battens?			
7.	Is ceiling treatment fixed to the resilient bars with correct screws?			
8.	Are all joints sealed with tape or caulked with sealant?			
9.	Are vertical service pipes wrapped in quilt and boxed in with two layers of gypsum-based board combined nominal mass per unit area of 20 kg/m^2?			
10.	Have all resilient flanking strips been fitted?			
11.	Is separating floor satisfactorily complete?			

Contact details for technical assistance from Hadley Group, manufacturer of UltraBEAM metal joists:

Telephone: 0121 555 1300 **Fax:** 0121 555 1301 **E-mail:** info@hadleygroup.co.uk

Notes (include details of any corrective action)

Site manager/supervisor signature . . . . . .

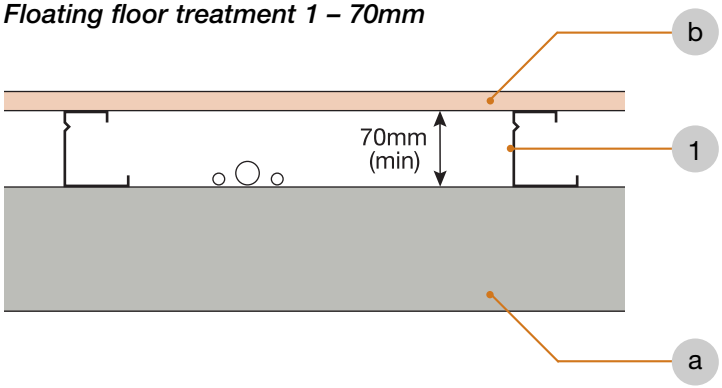
Appendix A3 – Specific Proprietary Products

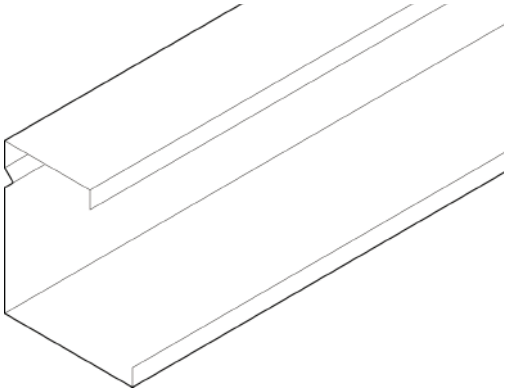
Contents

Appendix A3 – Specific Proprietary Products

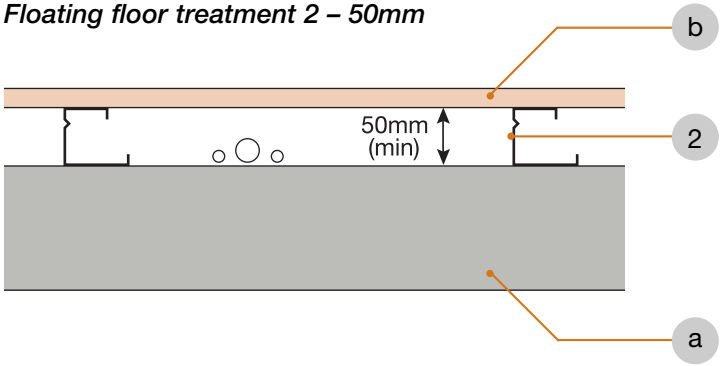
British Gypsum GypFloor SB floating floor treatment for robustdetails® concrete separating floors. Refer to Table 7 in Introduction.

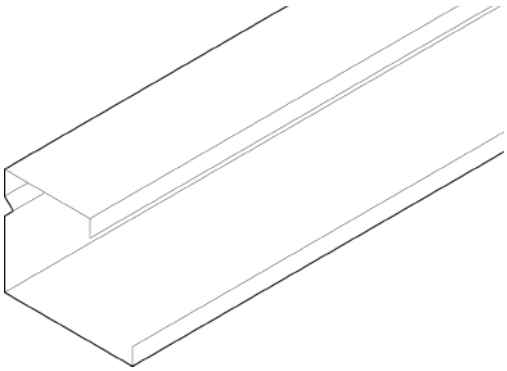
Floating floor treatment 1 – 70mm





Floating floor treatment 2 – 50mm





Key

1 British Gypsum 70 SB 65 steel batten.

2 British Gypsum 50 SB 65 steel batten.

a robustdetails® concrete separating floor.

b 18mm (min) t&g flooring board.

Note: The robustdetails® separating floor may require a levelling screed. Please refer to the relevant floor details in the Handbook.

This system must be installed in accordance with the manufacturer's instructions.

Gypframe GypFloor SB flanking strip SB3 must be applied around the perimeter of the flooring board to isolate floor from walls and skirting.

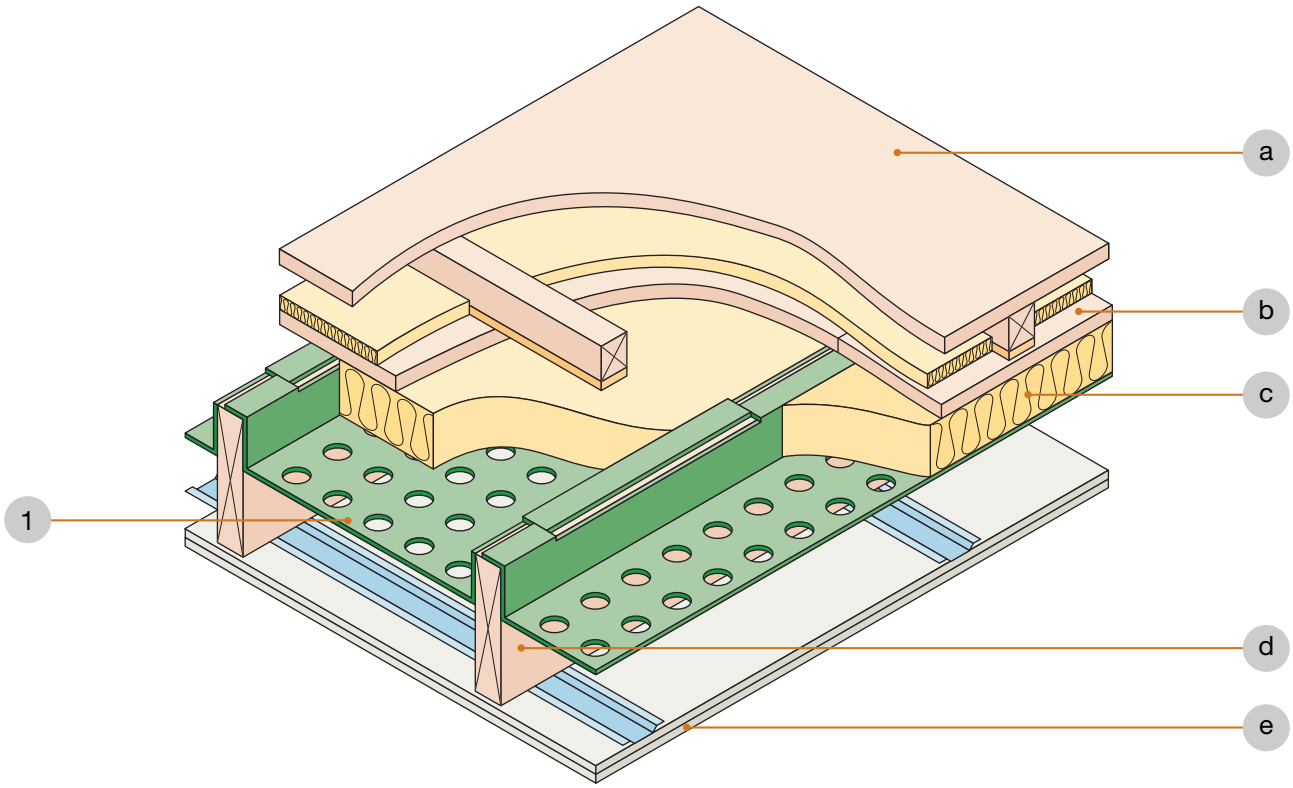
For further guidance on floating floor treatments and flanking strips, please refer to Appendix A1.

Contact details for British Gypsum Limited:

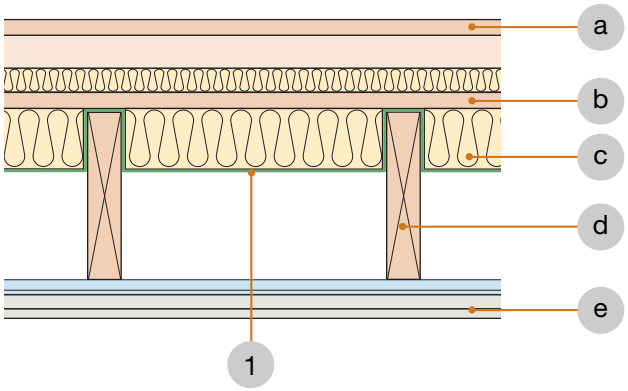
Telephone: 08705 456 123
Fax: 08705 456 356
E-mail: bgtechnical.enquiries@bpb.com
Web: www.british-gypsum.com

Appendix A3 – Specific Proprietary Products

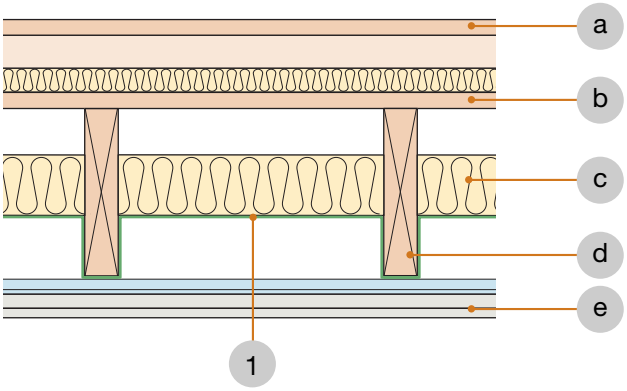
Insumate insulation support tray for robustdetails® timber joist separating floors. Refer to Table 7 in Introduction and the relevant Robust Details for acceptable joist types.



Option 1
as illustrated above



Option 2
Insumate trays may be inverted



Key

1 Insumate insulation support tray.

a Floating floor treatment.

b Floor sub-deck.

c Absorbent material.

d Floor joist – Refer also to Table 7 in Introduction.

e Ceiling treatment.

(For specification of items a to e, refer to the relevant Robust Detail)

Note

Ensure absorbent material 'c' is fitted between all joists, and also between the final joist and the perimeter blocking.

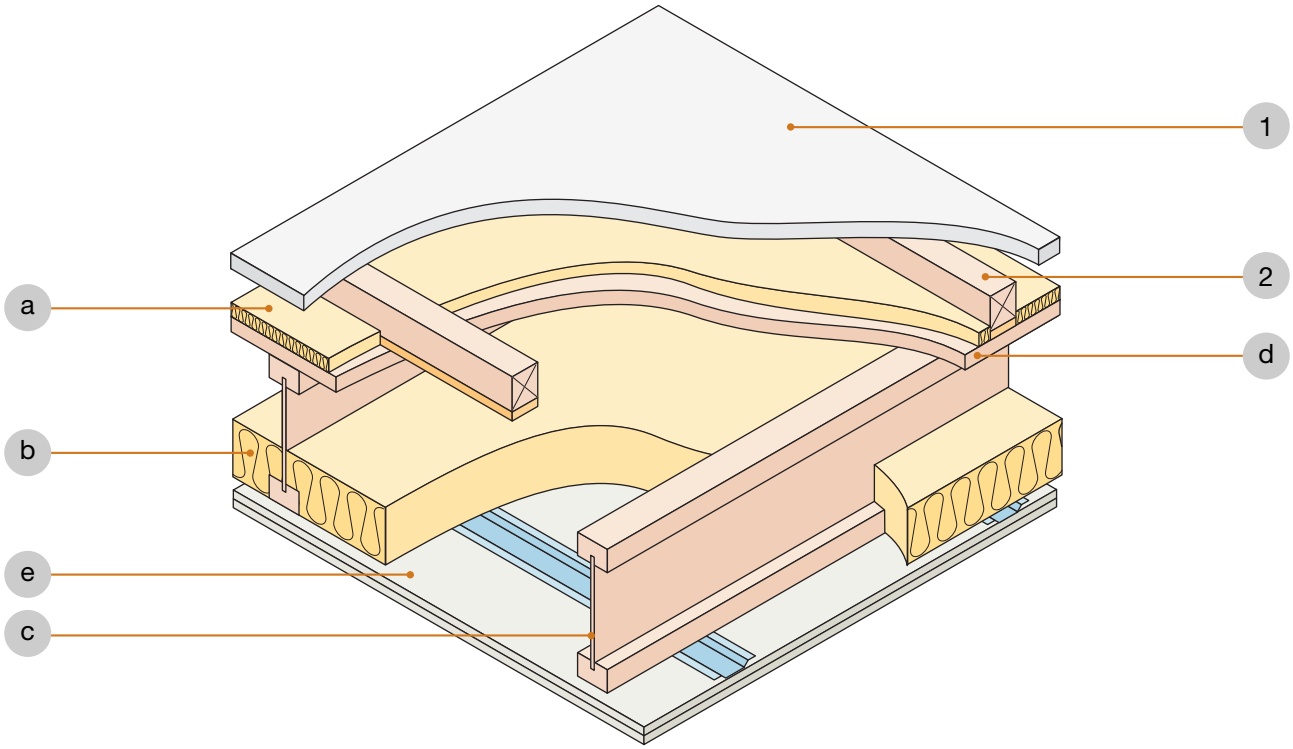
Insumate must be installed in accordance with the manufacturer's instructions.

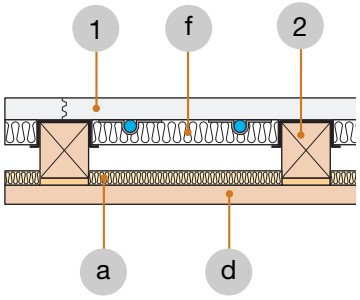
Contact details for Insumate Limited:

Telephone: 01768 866 009
Fax: 01768 866 009
E-mail: sales@insumateltd.com
Web: www.insumateltd.com

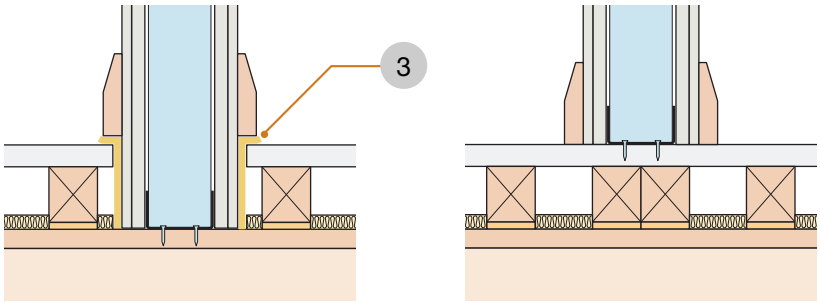
Appendix A3 – Specific Proprietary Products

Cellecta HiDECK Structural floor board floating floor treatment for robustdetails® timber and steel joist separating floors. Refer to Table 7 in Introduction and the relevant Robust Details for acceptable joist types.





Optional underfloor heating



Partition may be fitted through or on top of the HiDECK Structural floor board

Key

1 25, 28 or 30mm tongue & groove Cellecta HiDECK Structural floor board.

2 Cellecta DECK*fon* Batten 70.

3 5mm Cellecta YELO*fon* ES5 edging strip to the whole flooring perimeter.

a 15mm Cellecta FIBRE*fon* Micro 15, or mineral wool - as relevant Robust Detail.

b 50mm Cellecta FIBRE*fon* Micro 50, or mineral wool - as relevant Robust Detail.

c Steel or timber joist - as relevant Robust Detail.

d Timber subdeck - as relevant Robust Detail.

e Ceiling treatment - as relevant Robust Detail.

f Optional underfloor heating.

HiDECK Structural floor board and related components must be fitted in accordance with the manufacturer's instructions.

Contact details for Cellecta:

Telephone: 01634 296677
Fax: 01634 226630
E-mail: technical@cellecta.co.uk
Web: www.cellecta.co.uk