

Steel-concrete composite separating floor

Robust Detail E-FS-1 / V-FS-1

CELLECTA floating floor treatment laid on in-situ concrete slab supported by profiled metal deck

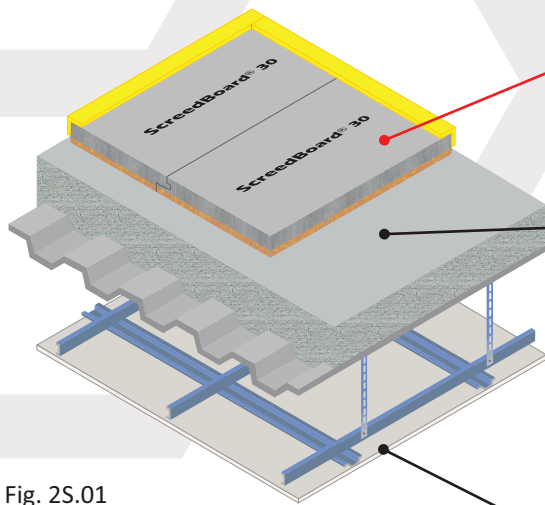


Fig. 2S.01

Floating floor

acoustic treatment options

- FFT1 - CELLECTA DECKfon® Batten 70
- FFT2 - CELLECTA RUBBERfon® Cradles
- FFT3 - CELLECTA DECKfon® Batten 45
- FFT4 - CELLECTA ScreedBoard® 30
- FFT5 - CELLECTA FIBREfon® 12C/21C/28C

Structural floor

In-situ concrete slab supported by profiled metal decking:

- "Shallow" or "deep" profiled metal decking
- Overall distance from top surface of concrete to underside of ceiling treatment 300mm (min)
- Concrete thickness 80mm (min) at shallowest point and 130mm (min) at deepest point
- Concrete density 2200kg/m³ (min)

Ceiling

See Table 2S.01a for ceiling treatment options

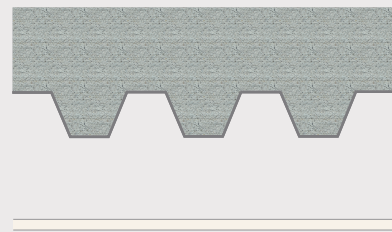
FASTRACKCAD
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Table 2S.01a

Ceiling Treatment Options



Any ceiling system
One layer of nominal 8kg/m² gypsum based board
300mm (min)

Acoustic Performance

Rd impact performance values quoted were conducted at Sound Research Laboratories (UKAS ref. 0444) in accordance with BS EN ISO 10140-3 and BS EN ISO 10140-4 and rated in accordance with BS EN ISO 717-2:2013 as detailed in Appendix D of the Robust Details hand book (minimum value required *rd ΔL_w* = 17dB).

PCT values quoted are typical, based on the treatment being installed correctly and pre-completion tested, with airborne performance tested in accordance with BS EN ISO 140-4:1998 and impact performance tested in accordance with BS EN ISO 140-7: 1998.

Third Party Accreditation and Approvals

RD
Compliant
Treatments
BBA
VERIFIED
RD DATA

NHBC
LABC warranty
Premier Guarantee
Accepted

CEMTECH
CERTIFICATION
bimtrada
2015

GWP
<5

100%
Recyclable
Recycled

zero
ODP



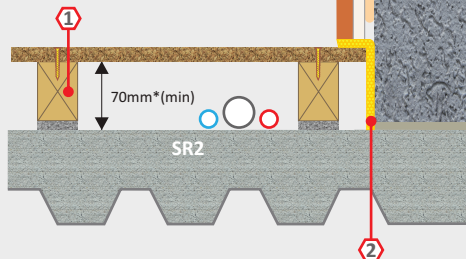
Table 2S.01b

FFT1 Resilient composite deep batten system**1** DECKfon® Batten 70

Deep acoustic batten: 75mm x 45mm x 2400mm
 *Height indicated when floor is loaded to 25kg/m²

2 YELOfon® ES5/120

Perimeter edge strip: 5mm x 120mm x 50m

**Airborne**56dB $D_{nT,w} + C_{tr}$ **Impact**

42dB $L_{nT,w}$
 $rd \Delta L_w = 27dB$

Building Regs
 $\geq +8dB$

BBA
 VERIFIED
 RD DATA

Additional item required to complete treatment: 18mm (min) tongue & groove flooring board

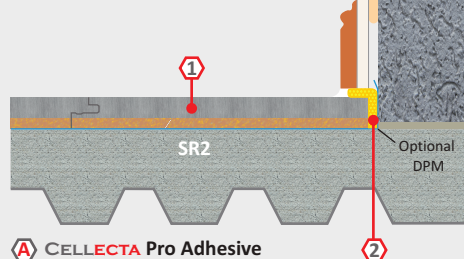
Table 2S.01e

FFT4 Resilient overlay platform floor system**1** ScreedBoard® 30

high performance, dense acoustic composite overlay board
 Dimensions: 30mm x 600mm x 1200mm
 Weight: 27.20kg/m² / 19.58kg/board

2 YELOfon® FS50

Preformed flanking strip:
 6mm x 50mm x 30mm x 2m

**Airborne**54dB $D_{nT,w} + C_{tr}$ **Impact**

47dB $L_{nT,w}$
 $rd \Delta L_w = 22dB$

Building Regs
 $\geq +8dB$

CLASS B/F, S1
 BS EN13501-1

A CELLECTA Pro Adhesive
 ScreedBoard joint adhesive
 Bottle size: 1L / 33m²

Additional item required: ScreedBoard fixing tools

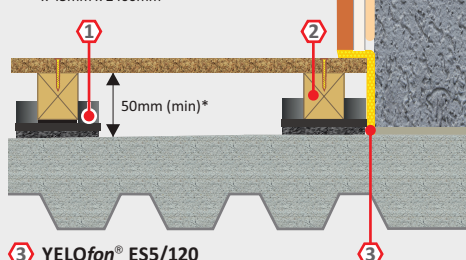
Table 2S.01c

FFT2 Resilient cradle and batten levelling system**1** RUBBERfon® Cradles

10mm high x 100mm x 100mm
 Levelling packers: 2, 3 & 5mm
 Elevation blocks: 15 & 30mm

2 CELLECTA softwood timber batten

Standard dimensions: 40, 65mm⁽²⁾
 x 45mm x 2400mm

**Airborne**54dB $D_{nT,w} + C_{tr}$ **Impact**

44dB $L_{nT,w}$
 $rd \Delta L_w = 25dB$

Building Regs
 $\geq +8dB$

3 YELOfon® ES5/120

Perimeter edge strip: 5mm x 120mm x 50m

Additional item required to complete treatment: 18mm (min) tongue & groove flooring board.
⁽²⁾ Other height battens available upon request. *Height indicated when floor is loaded to 25kg/m²

Table 2S.01f

FFT5 Resilient shallow overlay platform floor system**1** FIBREfon® 12C, 21C, 28C

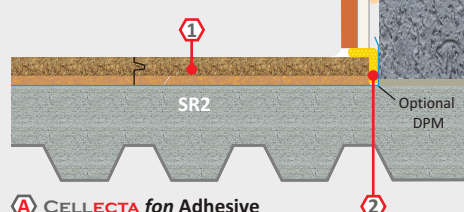
12C: 12mm x 600mm x 2400mm
 21C: 21mm x 600mm x 2400mm
 28C: 28mm x 600mm x 2400mm

2 12C: YELOfon® ES5/60

Perimeter edge strip: 5mm x 60mm x 50m

21C, 28C: YELOfon® FS30

Pre-formed flanking strip:
 6mm x 30mm x 30mm x 2m

**12C Airborne**51dB $D_{nT,w} + C_{tr}$ **12C Impact**

48dB $L_{nT,w}$
 $rd \Delta L_w = 21dB$

21C Airborne52dB $D_{nT,w} + C_{tr}$ **21C Impact**

51dB $L_{nT,w}$
 $rd \Delta L_w = 18dB$

28C Airborne52dB $D_{nT,w} + C_{tr}$ **28C Impact**

48dB $L_{nT,w}$
 $rd \Delta L_w = 21dB$

A CELLECTA fon Adhesive
 Floorboard joint adhesive
 Bottle size: 1L / 33m²

Building Regs
 $\geq +8dB$

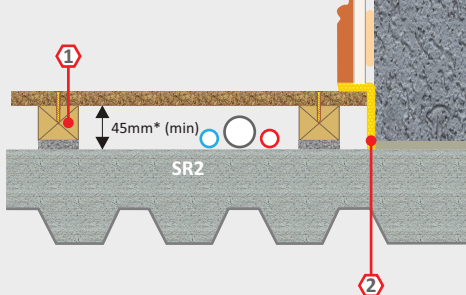
Table 2S.01d

FFT3 Resilient composite standard batten system**1** DECKfon® Batten 45

Standard acoustic batten: 50mm x 45mm x 2400mm
 *Height indicated when floor is loaded to 25kg/m²

2 YELOfon® ES5/100

Perimeter edge strip: 5mm x 100mm x 50m

**Airborne**54dB $D_{nT,w} + C_{tr}$ **Impact**

44dB $L_{nT,w}$
 $rd \Delta L_w = 25dB$

Building Regs
 $\geq +8dB$

BBA
 VERIFIED
 RD DATA

Additional item required to complete treatment: 18mm (min) tongue & groove flooring grade

Construction notes

Ceiling treatments detailed can be used with any FFT listed in Table 2S.01b-f.
 Slab/levelling screed must be to SR2 Standard when adopting FFT1, 3, 4 or 5.
 No services should be installed within the treatment when adopting FFT5.

Materials must be installed in accordance with manufacturers' and Robust Detail instructions to achieve required acoustic performance values. Wall treatments MUST be isolated from the floating floor with YELOfon ES or FS perimeter flanking strip.

Steel-concrete composite separating floor

Robust Detail E-FS-1 / V-FS-1

CELLECTA dry laid resilient systems incorporating underfloor heating
In-situ concrete slab supported by profiled metal deck

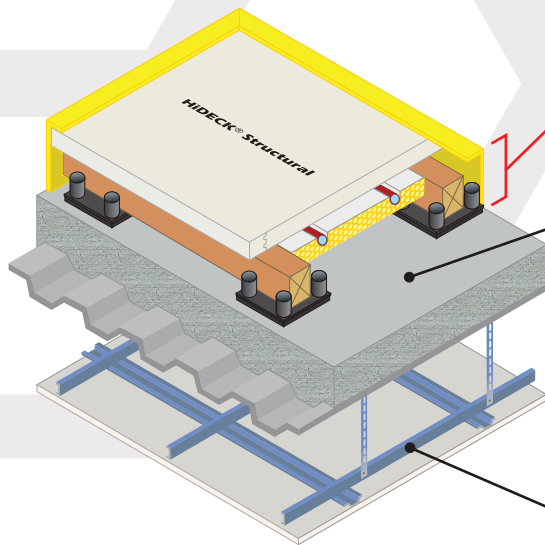


Fig. 2S.02

**Floating floor
acoustic treatment
incorporating UFH
options**

FFT2 - CELLECTA Gobi® cradle & batten system incorporating UFH
FFT4 - CELLECTA Mojave® platform floor system incorporating UFH

Structural floor

In-situ concrete slab supported by profiled metal decking:

- "Shallow" or "deep" profiled metal decking
- Overall distance from top surface of concrete to underside of ceiling treatment 300mm (min)
- Concrete thickness 80mm (min) at shallowest point and 130mm (min) at deepest point
- Concrete density 2200kg/m³ (min)

Ceiling

See Table 2S.02a for ceiling treatment options

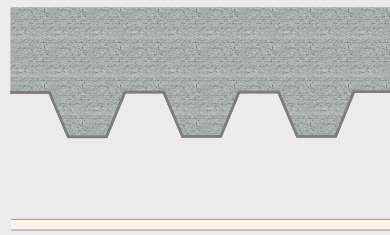
FASTRACKCAD
ARCHITECTURAL CAD DATABASES

n55Plus

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Table 2S.02a

Ceiling Treatment Options



Any ceiling system
One layer of nominal 8kg/m² gypsum based board
300mm (min)

Construction notes

Ceiling treatments detailed can be used with any FFT listed in Table 2S.02b-c.
Slab/levelling screed must be to SR2 Standard when adopting the **Mojave** system.
Materials must be installed in accordance with manufacturers' and Robust Detail instructions to achieve required acoustic performance values. Wall treatments MUST be isolated from the floating floor with **YELOfon ES** or **FS** perimeter flanking strip.

Acoustic Performance

Rd impact performance values quoted were conducted at Sound Research Laboratories (UKAS ref. 0444) in accordance with BS EN ISO 10140-3 and BS EN ISO 10140-4 and rated in accordance with BS EN ISO 717-2:2013 as detailed in Appendix D of the Robust Details hand book (minimum value required $rd \Delta L_w = 17dB$).
PCT values quoted are typical, based on the treatment being installed correctly and pre-completion tested, with airborne performance tested in accordance with BS EN ISO 140-4:1998 and impact performance tested in accordance with BS EN ISO 140-7: 1998.

Third Party Accreditation and Approvals

RD
Compliant
Treatments
BBA
VERIFIED
RD DATA

NHBC
LABC warranty
Premier Guarantee
Accepted

bmtrada
2015

GWP
<5

100%
Recyclable
Recycled

zero
ODP



Un-even sub-floor

Table 2S.02b

FFT2 Dry laid resilient cradle and batten levelling system incorporating underfloor heating

CELLECTA Gobi® C2-25

Components

1 HiDECK® Structural 25⁽¹⁾

High conductivity structural board:
25mm x 600mm x 1200mm
Weight: 31.25kg/m²
Thermal resistance: 0.0625m²K/W

A CELLECTA Pro Adhesive

HiDECK joint adhesive
Bottle size: 1L / 16m² coverage

2 CELLECTA softwood timber batten

Standard dimensions⁽²⁾: 40, 65mm x 45mm x 2400mm
Chain of custody: PEFC & FSC

3 RUBBERfon® Cradles

Dimensions: 10mm high x 100mm x 100mm
Levelling packers: 2, 3, 5mm
Stackable elevation blocks: 15, 30mm

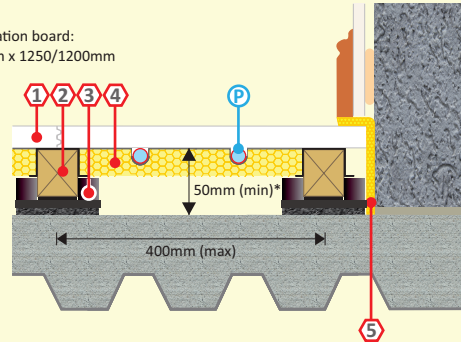
4 XFLO® JB-FF

Foil faced high strength routed XPS insulation board:
Dimensions: 30, 40, 50mm x 300/340mm x 1250/1200mm
Pipe centre: 150, 200, 300mm
Pipe bore size (OD): 10 - 20mm
(manufactured to suit)

5 YELOfon® ES5/120

Perimeter edge strip:
5mm x 120mm x 50mm

P UFH water pipe (by others)



Airborne
54dB $D_{nT,w} + C_{tr}$

Impact
44dB $L_{nT,w}$
 $rd \Delta L_w = 25dB$

Building Regs
≥+8dB



⁽¹⁾ 28 & 30mm also available to satisfy higher non-domestic loading conditions.

⁽²⁾ Other height battens available upon request.

*Height indicated when floor is loaded to 25kg/m²

Level sub-floor (laid to SR2 standard)

Table 2S.02c

FFT4 Dry laid resilient overlay platform floor system incorporating UFH

CELLECTA Mojave® S1-10

Dry laid acoustic treatment incorporating underfloor heating system

1 ScreedBoard® 20

High conductivity overlay board:
Dimensions: 20mm x 600mm x 1200mm
Weight: 25kg/m² / 18.00kg/board
Thermal resistance: 0.05m²K/W

A CELLECTA Pro Adhesive

ScreedBoard joint adhesive
Bottle size: 1L / 33m² coverage

2 ULTRAplate

Aluminium heat diffuser plate (to suit pipe installed):
Dimensions: 130mm x 1000mm

3 XFLO® 250, 300, 500

High compressive strength routed XPS insulation board:
Dimensions: 15-75mm x 600mm x 1200/2500mm
Compressive strengths available: 250, 300, 500kPa
Pipe centre: 150, 200, 300mm
Pipe bore size (OD): 10 - 20mm (manufactured to suit)

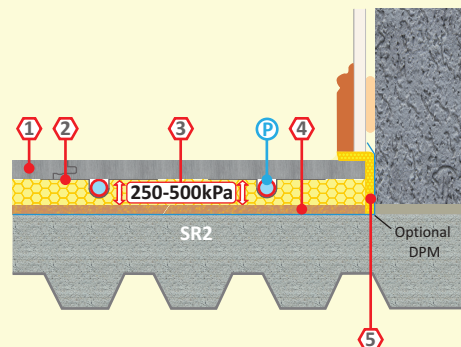
4 FIBREfon® 10

High compressive strength resilient layer:
Dimensions: 10mm x 600mm x 1200mm
Weight: 2.20kg/m² / 1.58kg/board

5 YELOfon® ES5/120

Perimeter edge strip:
5mm x 120mm x 50mm

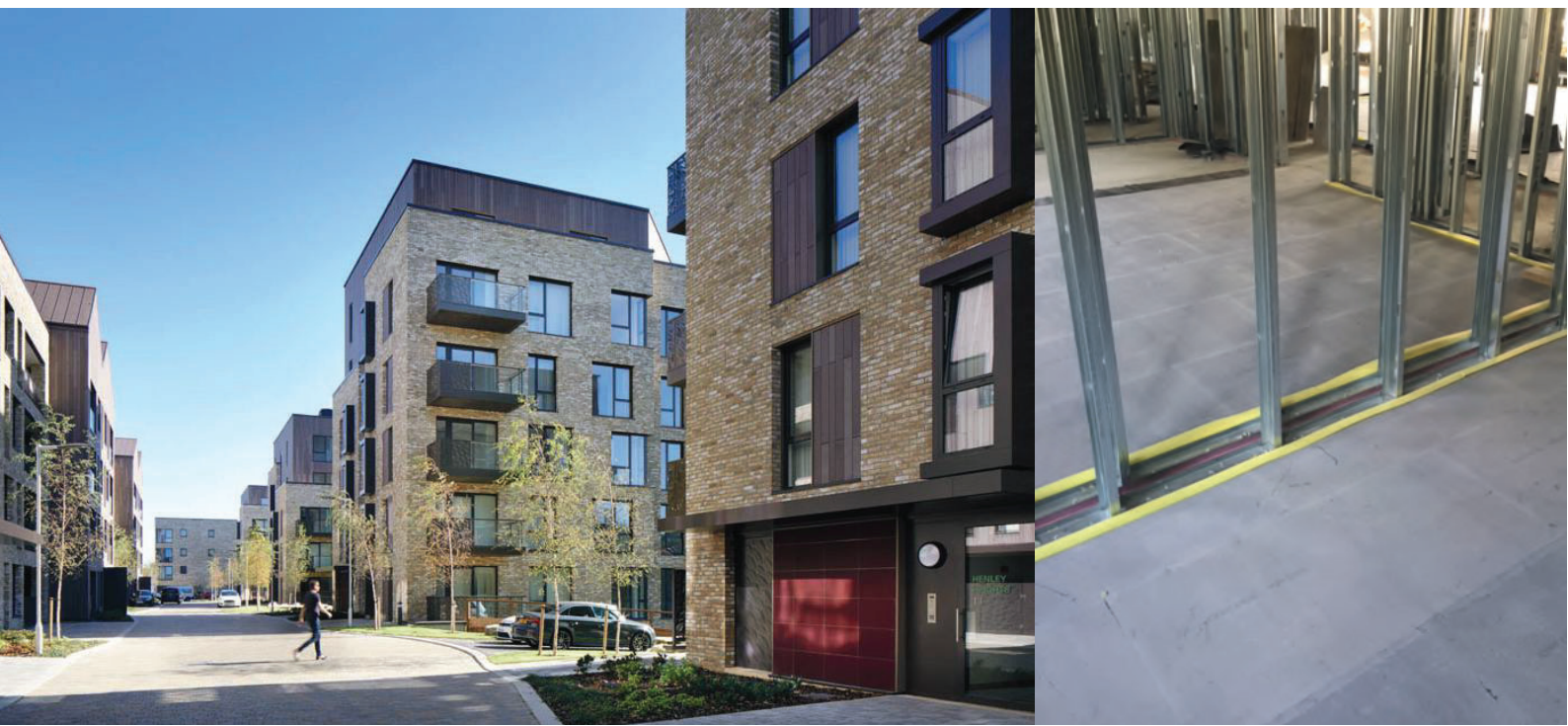
P UFH water pipe (by others)



Airborne
54dB $D_{nT,w} + C_{tr}$

Impact
41dB $L_{nT,w}$
 $rd \Delta L_w = 28dB$

Building Regs
≥+8dB

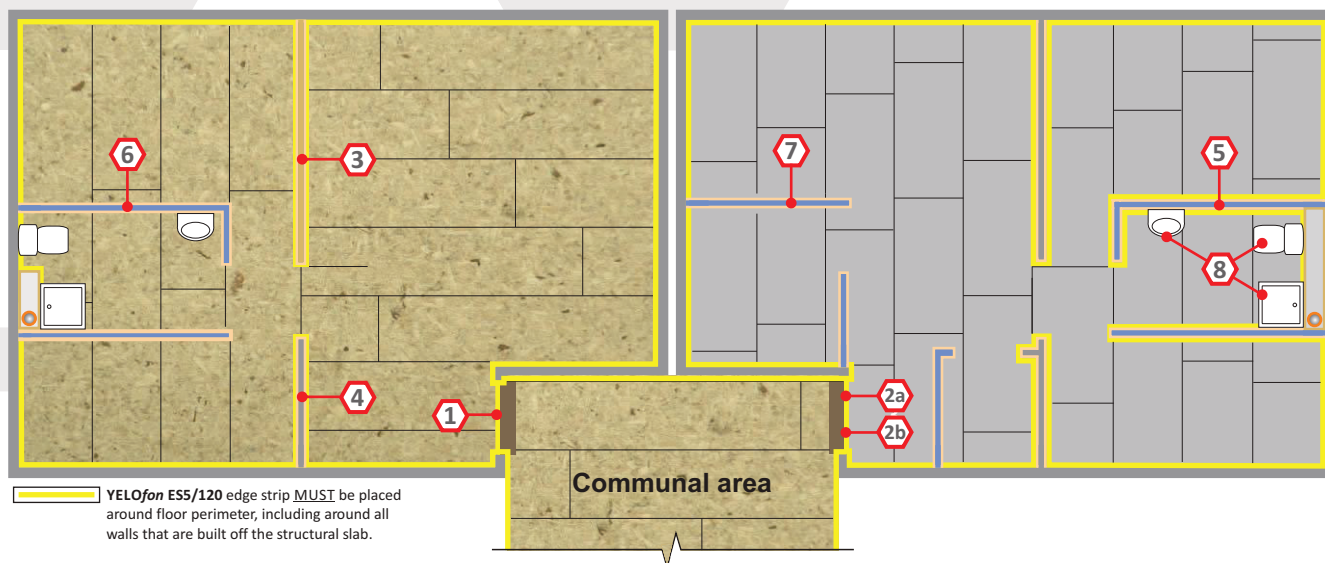


Floating floor treatment design & installation details: FFT1, 2, 3, 4 & 5

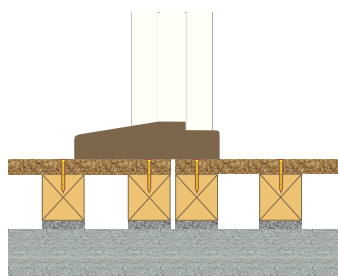
The acoustic performance of the floor will be compromised if the floating floor treatment is not completely isolated from the structural floor, soil pipes, door frames, the surrounding walls and their treatments. To address this risk, each potential problem area needs to be detailed accordingly.

Batten based floating floor treatments

Overlay floating floor treatments

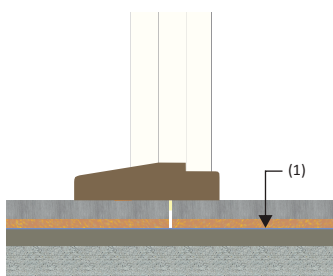


1 Door threshold FFT1, 2, 3



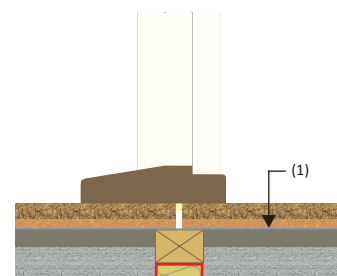
Double up battens each side of the door threshold to provide additional support. Refer to Part B and Section 2 fire safety regulations

2a Door threshold FFT4 (ScreedBoard 30)



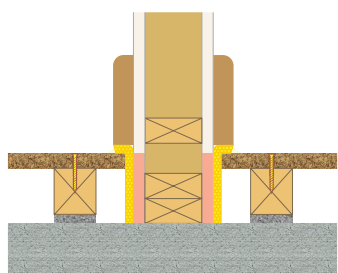
Leave a 5mm (min) gap between the habitable area treatment and the communal area treatment.

2b Door threshold FFT5



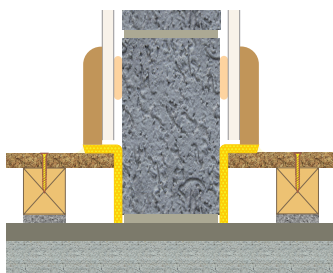
⁽¹⁾ On recently levelled floors, install a DPM below the FFT4, FFT5 floating floor treatment.

3 Timber stud partition built off the structural floor



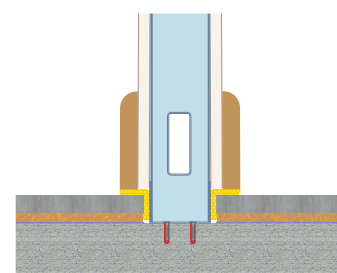
Lightweight internal walls built off the structural floor **MUST** be isolated from the floating floor treatment (FFT1, 2, 3) with YELOfon ES strip.

4 Internal blockwork wall built off the structural floor



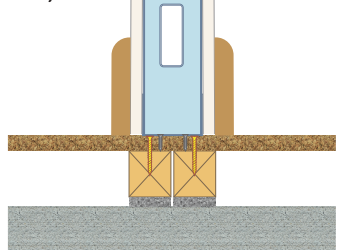
Internal block work walls built off the structural floor must be isolated from the floating floor treatment with YELOfon ES or FS strip.

5 Metal frame partition built off structural floor



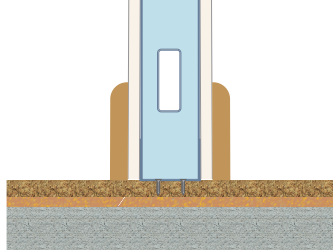
Lightweight internal walls built off the structural floor must be isolated from the floating floor treatment (FFT4, 5) with YELOfon FS strip.

6 Non-load bearing partition built off FFT1, 2 or 3



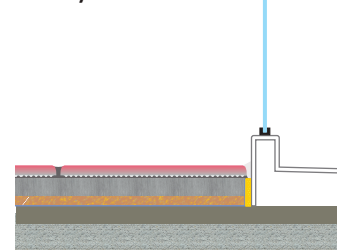
Double up battens under internal non-load bearing walls.

7 Non-load bearing partition built off FFT4 or 5



Internal non-load bearing walls can be built directly off the floor treatment. Fixings **MUST** not penetrate the resilient layer.

8 Shower trays, bath surrounds and sanitary ware



Shower trays, bath surrounds and sanitary ware built off the structural floor should be isolated from the floor treatment and any floor finishes with YELOfon ES or FS edge strip.