

# In-situ concrete slab separating floor

## Robust Detail E-FC-2

CELLECTA floating floor treatment laid on structural floor  
In-situ concrete slab

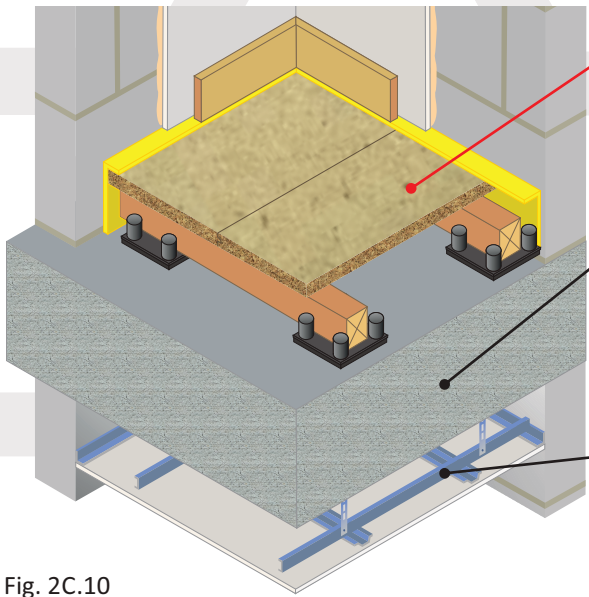


Fig. 2C.10

### 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

- 250mm (min) in-situ concrete slab, 2400kg/m<sup>3</sup> density without screed
- 200mm (min) in-situ concrete slab 2400kg/m<sup>3</sup> density with screed: 40mm sand & cement screed or 80kg/m<sup>2</sup> (min) proprietary screed directly applied to slab

### Ceiling

See Table 2C.10a for ceiling treatment options

**FASTRACKCAD**  
ARCHITECTURAL CAD DATABASES

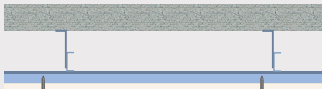
**n55Plus**

Available on  
**bimstore.co**

Table 2C.10a

### Ceiling Treatment Options

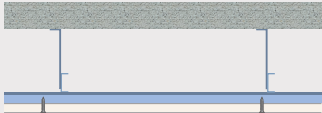
Any ceiling system - 75mm void



One layer of nominal 10kg/m<sup>2</sup> gypsum-based board

75mm (min)

Any ceiling system - 100mm void



One layer of nominal 8kg/m<sup>2</sup> gypsum-based board

100mm (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<sub>n</sub>* = 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

**2015**

### Environmental Credentials

**GWP**  
**<5**

**100%**  
Recyclable  
Recycled

**zero**  
ODP



01634 29-66-77



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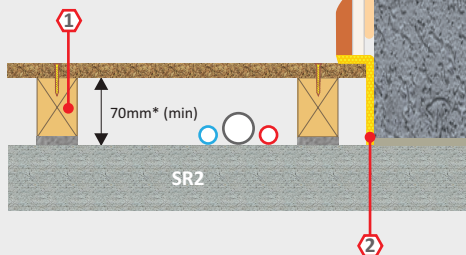
Table 2C.10b

**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/m<sup>2</sup>

**2** YELOfon® ES5/120

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



**Airborne**  
**57dB  $D_{nT,w} + C_{tr}$**

**Impact**  
**43dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 27dB$**

**Building Regs**  
 **$\geq +8dB$**

**BBA**  
**VERIFIED**  
**RD DATA**

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

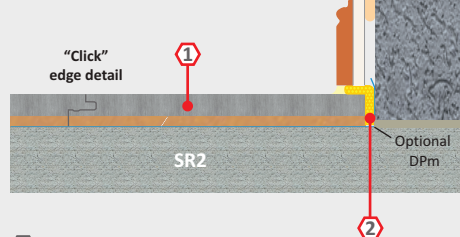
Table 2C.10e

**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/m<sup>2</sup> / 19.58kg/board

**2** YELOfon® FS50

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



**Airborne**  
**55dB  $D_{nT,w} + C_{tr}$**

**Impact**  
**48dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 22dB$**

**Building Regs**  
 **$\geq +8dB$**



**CELLECTA Pro Adhesive**  
 ScreedBoard joint adhesive  
 Bottle size: 1L / 33m<sup>2</sup>

Additional item required: ScreedBoard fixing tools

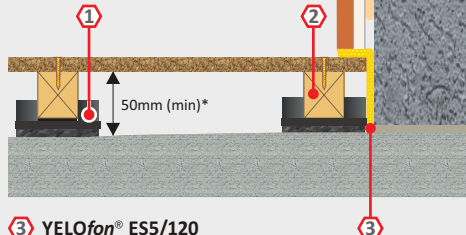
Table 2C.10c

**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<sup>(1)</sup>  
 x 45mm x 2400mm



**Airborne**  
**55dB  $D_{nT,w} + C_{tr}$**

**Impact**  
**45dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 25dB$**

**Building Regs**  
 **$\geq +8dB$**

**BBA**  
**VERIFIED**  
**RD DATA**

Additional item required to complete treatment: 18mm (min) tongue & groove flooring board.  
<sup>(1)</sup> Other height battens available upon request. \*Height indicated when floor is loaded to 25kg/m<sup>2</sup>

Table 2C.10f

**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 50mm x 30mm x 2m



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

**12C Impact**  
**49dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 21dB$**

**21C Airborne**  
**51dB  $D_{nT,w} + C_{tr}$**

**21C Impact**  
**52dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 18dB$**

**28C Airborne**  
**51dB  $D_{nT,w} + C_{tr}$**

**28C Impact**  
**49dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 21dB$**

**CELLECTA fon Adhesive**  
 Acoustic floorboard joint adhesive  
 Bottle size: 1L / 33m<sup>2</sup>

**Building Regs**  
 **$\geq +5dB$**

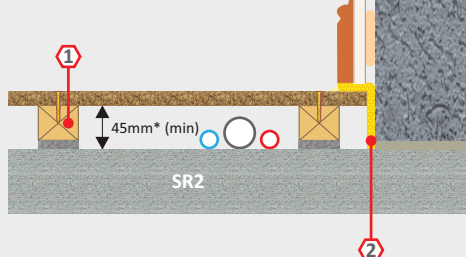
Table 2C.10d

**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/m<sup>2</sup>

**2** YELOfon® ES5/100

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



**Airborne**  
**55dB  $D_{nT,w} + C_{tr}$**

**Impact**  
**45dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 25dB$**

**Building Regs**  
 **$\geq +8dB$**

**BBA**  
**VERIFIED**  
**RD DATA**

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

**Construction notes**

Ceiling treatments detailed can be used with any FFT listed in Table 2C.10b-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.

# In-situ concrete slab separating floor

# Robust Detail E-FC-2 + UFH

CELLECTA dry laid resilient systems incorporating underfloor heating  
In-situ concrete slab

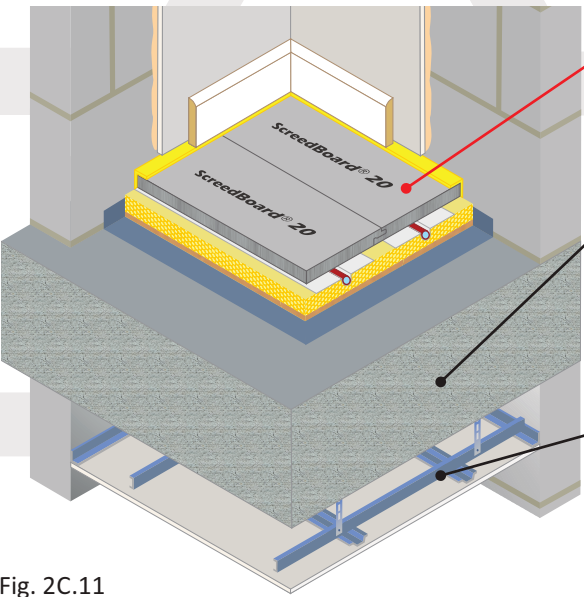


Fig. 2C.11

**Floating floor acoustic treatment options**

FFT2 - **CELLECTA Gobi®** cradle & batten system incorporating UFH

FFT4 - **CELLECTA Mojave®** platform floor system incorporating UFH

**Structural floor**

- 250mm (min) in-situ concrete slab, 2400kg/m<sup>3</sup> density without screed
- 200mm (min) in-situ concrete slab 2400kg/m<sup>3</sup> density with screed: 40mm sand & cement screed or 80kg/m<sup>2</sup> (min) proprietary screed directly applied to slab

See Table 2C.11a for ceiling treatment options

**FASTRACKCAD**  
ARCHITECTURAL CAD DATABASES

**NSPlus**

Available on  
**bimstore.co**

Table 2C.11a

Ceiling Treatment Options	
Any ceiling system - 75mm void	One layer of nominal 10kg/m <sup>2</sup> gypsum-based board
	75mm (min)
Any ceiling system - 100mm void	One layer of nominal 8kg/m <sup>2</sup> gypsum-based board
	100mm (min)

**Construction notes**

Ceiling treatments detailed can be used with any FFT listed in Table 2C.11b-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

**2015**

**GWP**  
**<5**

**100%**  
Recyclable  
Recycled

**zero**  
ODP

## Environmental Credentials



01634 29-66-77



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## Un-even sub-floor

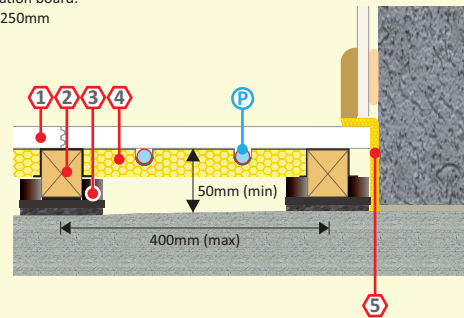
Table 2C.11b

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

#### CELLECTA Gobi® (C2-25 shown)

##### Components

- 1 **HiDECK® Structural 25<sup>(1)</sup>**  
High conductivity structural board:  
**Dimensions:** 25mm x 600mm x 1200mm  
**Weight:** 31.25m<sup>2</sup>  
**Thermal resistance:** 0.0625m<sup>2</sup>K/W
- 2 **CELLECTA Pro Adhesive**  
HiDECK joint adhesive  
**Bottle size:** 1L / 16m<sup>2</sup> coverage
- 3 **CELLECTA softwood timber batten<sup>(2)</sup>**  
**Standard dimensions:** 40, 65mm x 45mm x 2400mm  
**Chain of custody:** PEFC & FSC
- 4 **XFLO® JB-FF**  
Foil faced high strength routed XPS insulation board:  
**Dimensions:** 30, 40, 50mm x 300mm x 1250mm  
**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 50m
- P **UFH water pipe (by others)**
- 3 **RUBBERfon® Cradles**  
**Dimensions:** 10mm high x 100mm x 100mm  
**Levelling packers:** 2, 3, 5mm  
**Stackable elevation blocks:** 15, 30mm



<sup>(1)</sup> 28 & 30mm available to satisfy higher non-domestic loading conditions.  
<sup>(2)</sup> Other height battens available upon request.

**Airborne**  
**55dB  $D_{nT,w} + C_{tr}$**

**Impact**  
**45dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 25dB$**

**Building Regs**  
 **$\geq +8dB$**

**CLASS A1**  
BS EN13501-1

## Level sub-floor (Laid to SR2 standard)

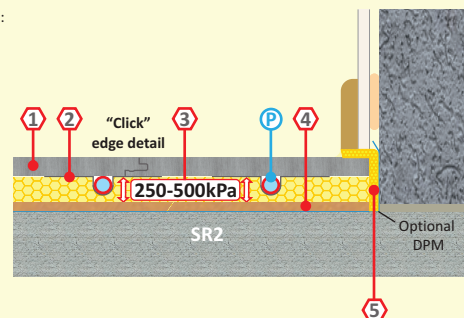
Table 2C.11c

### FFT4 Dry laid resilient overlay platform floor system incorporating UFH

#### CELLECTA Mojave® (S1/10 shown)

Dry laid acoustic treatment incorporating underfloor heating system

- 1 **ScreedBoard® 20**  
High conductivity overlay board:  
**Dimensions:** 20mm x 600mm x 1200mm  
**Weight:** 25kg/m<sup>2</sup> / 18.00kg/board  
**Thermal resistance:** 0.05m<sup>2</sup>K/W
- 2 **CELLECTA Pro Adhesive**  
ScreedBoard joint adhesive  
**Bottle size:** 1L / 33m<sup>2</sup> coverage
- 3 **XFLO® 250, 300, 500**  
High compressive strength routed XPS insulation board:  
**Compressive strengths available:** 250, 300, 500kPa  
**Dimensions:** 15-75mm x 600mm x 1200/2500mm  
**Pipe centres:** 150, 200, 300mm  
**Pipe bore size (OD):** 10 - 20mm (manufactured to suit)
- 4 **FIBREfon® 10**  
High compressive strength resilient layer:  
10mm x 600mm x 1200mm  
**Weight:** 2.20kg/m<sup>2</sup> / 1.58kg/board
- 5 **YELOfon® ES5/120**  
Perimeter edge strip:  
5mm x 120mm x 50m
- P **UFH water pipe (by others)**



**Airborne**  
**55dB  $D_{nT,w} + C_{tr}$**

**Impact**  
**46dB  $L_{nT,w}$**   
 **$rd \Delta L_w = 24dB$**

**Building Regs**  
 **$\geq +8dB$**

**CLASS Bf/S1**  
BS EN13501-1

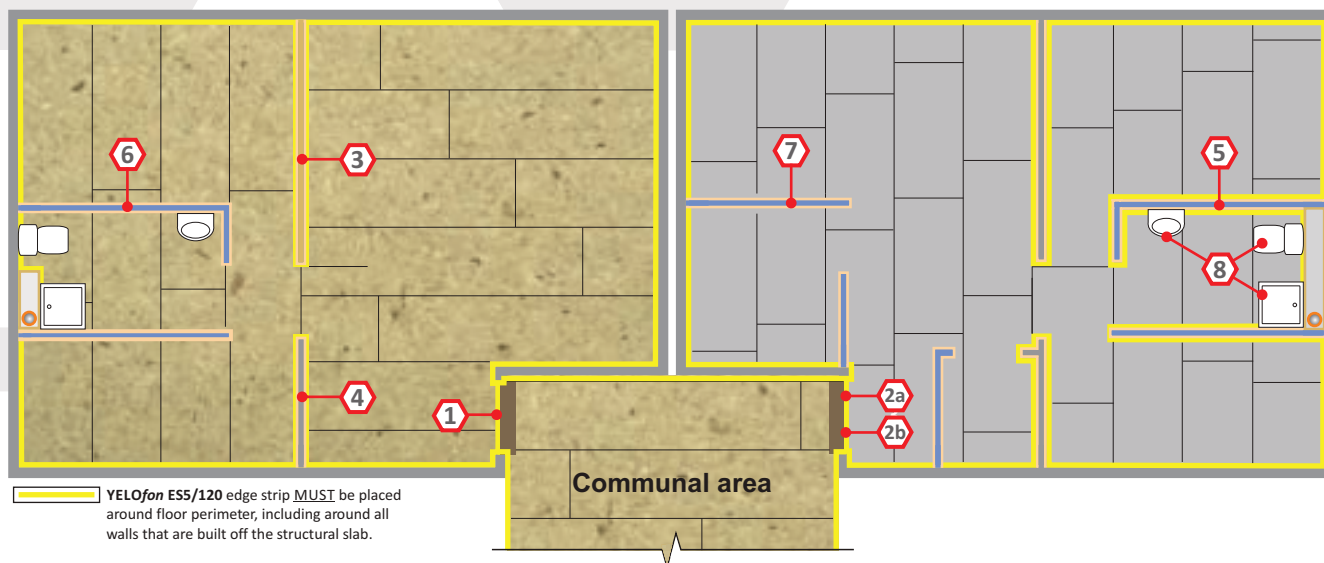


# Floating floor treatment design & installation details: FFT1, 2, 3, 4 & 5

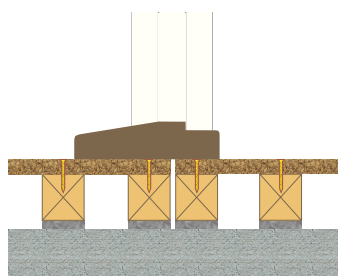
The acoustic performance of the floor will be compromised if the floating floor treatment is not completely isolated from the structural floor, soil pipes, door frames, the surrounding walls and their treatments. To address this risk, each potential problem area needs to be detailed accordingly.

## Batten based floating floor treatments

## Overlay floating floor treatments

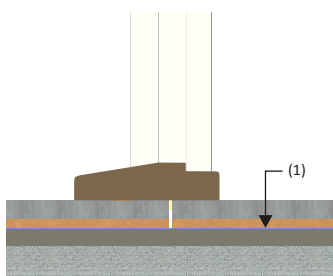


**1** Door threshold FFT1, 2, 3



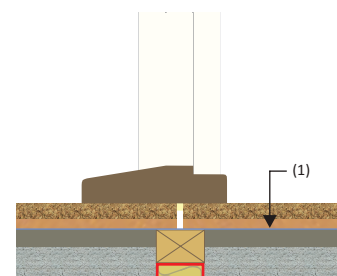
Double up battens each side of the door threshold to provide additional support. Refer to Part B and Section 2 fire safety regulations

**2a** Door threshold FFT4 (ScreedBoard 30)



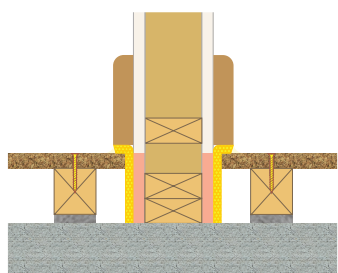
Leave a 5mm (min) gap between the habitable area treatment and the communal area treatment.

**2b** Door threshold FFT5



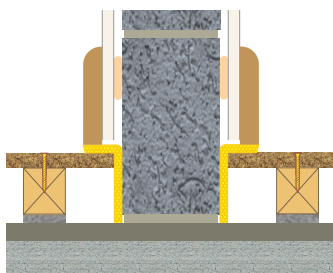
<sup>(1)</sup> On recently levelled floors, install a DPM below the FFT4, FFT5 floating floor treatment.

**3** Timber stud partition built off the structural floor



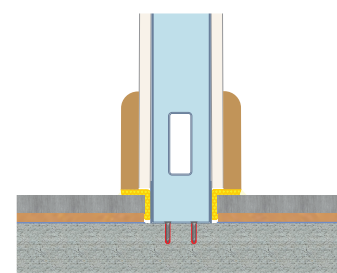
Lightweight internal walls built off the structural floor MUST be isolated from the floating floor treatment (FFT1, 2, 3) with YELOfon ES strip.

**4** Internal blockwork wall built off the structural floor



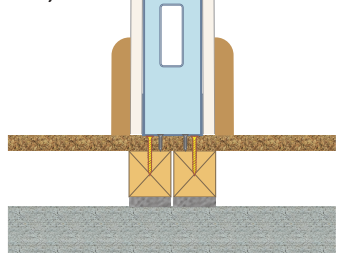
Internal block work walls built off the structural floor must be isolated from the floating floor treatment with YELOfon ES or FS strip.

**5** Metal frame partition built off structural floor



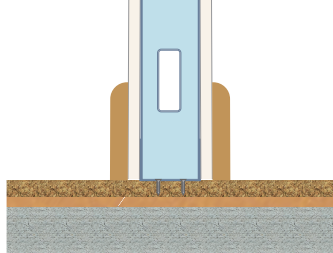
Lightweight internal walls built off the structural floor must be isolated from the floating floor treatment (FFT4, 5) with YELOfon FS strip.

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



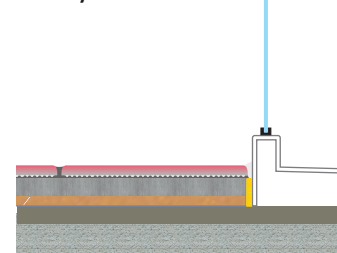
Double up battens under internal non-load bearing walls.

**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.