

In-situ concrete slab separating floor

Robust Detail E-FC-2

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

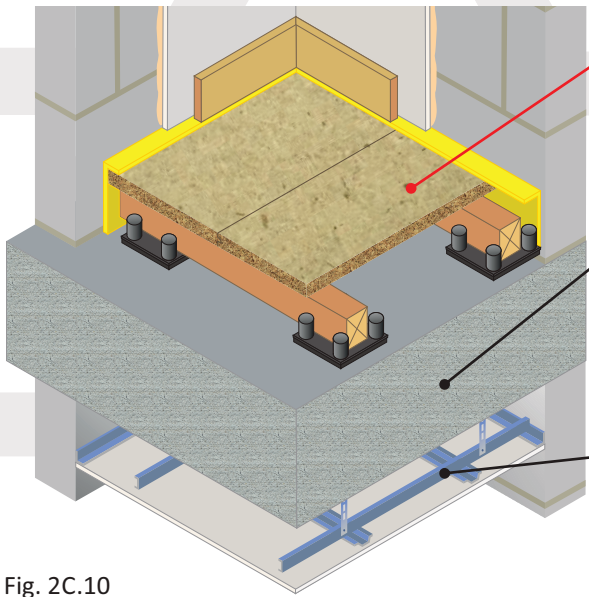


Fig. 2C.10

- 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/m³ density without screed
 - 200mm (min) in-situ concrete slab 2400kg/m³ density with screed: 40mm sand & cement screed or 80kg/m² (min) proprietary screed directly applied to slab

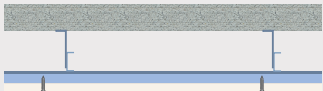
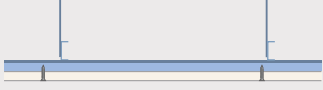
Ceiling See Table 2C.10a for ceiling treatment options

FASTRACKCAD
ARCHITECTURAL CAD DATABASES

n55Plus

Available on
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Table 2C.10a

Ceiling Treatment Options	
Any ceiling system - 75mm void	One layer of nominal 10kg/m ² gypsum-based board
	75mm (min)
Any ceiling system - 100mm void	One layer of nominal 8kg/m ² 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 $rd \Delta L_w = 17dB$).
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

bimtrada
2015

GWP
<5

100%
Recyclable
Recycled

zero
ODP



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Table 2C.10b

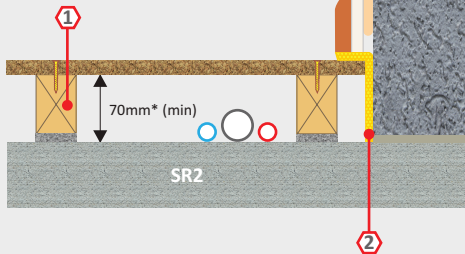
FFT1 Resilient composite deep batten system

1 DECKfon® Batten 70

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

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
≥+8dB

BBA VERIFIED
RD DATA

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

Table 2C.10e

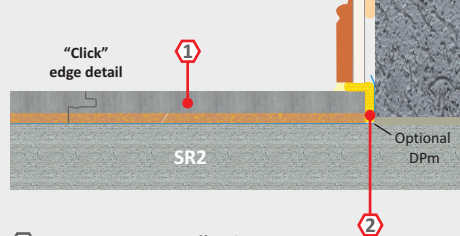
FFT4 Resilient overlay platform floor system

1 ScreedBoard® 30

high performance, dense acoustic composite overlay board
Dimensions: 30mm x 600mm x 1200mm
Weight: 27.20kg/m² / 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
≥+8dB

BBA VERIFIED
RD DATA

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

CLASS B/F, S1
BS EN13501-1

Additional item required: ScreedBoard fixing tools

Table 2C.10c

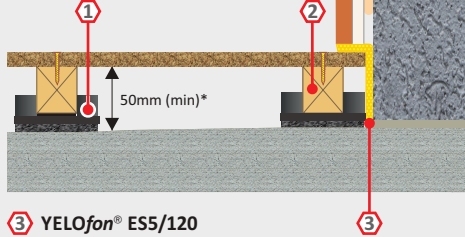
FFT2 Resilient cradle and batten levelling system

1 RUBBERfon® Cradles

10mm high x 100mm x 100mm
Levelling packers: 2, 3 & 5mm

2 CELLECTA Softwood timber batten

Standard dimensions: 40, 65mm⁽¹⁾
x 45mm x 2400mm



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

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

Building Regs
≥+8dB

BBA VERIFIED
RD DATA

Additional item required to complete treatment: 18mm (min) tongue & groove flooring board.
⁽¹⁾ Other height battens available upon request. *Height indicated when floor is loaded to 25kg/m²

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

CELLLECTA fon Adhesive
Acoustic floorboard joint adhesive
Bottle size: 1L / 33m²

Building Regs
≥+5dB

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.

Table 2C.10d

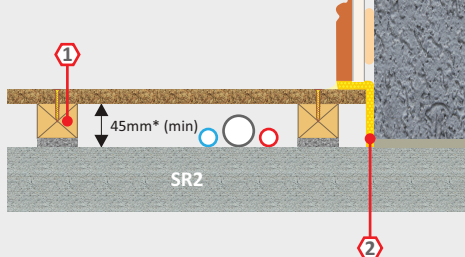
FFT3 Resilient composite standard batten system

1 DECKfon® Batten 45

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

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
≥+8dB

BBA VERIFIED
RD DATA

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

In-situ concrete slab separating floor

Robust Detail E-FC-2 + UFH

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

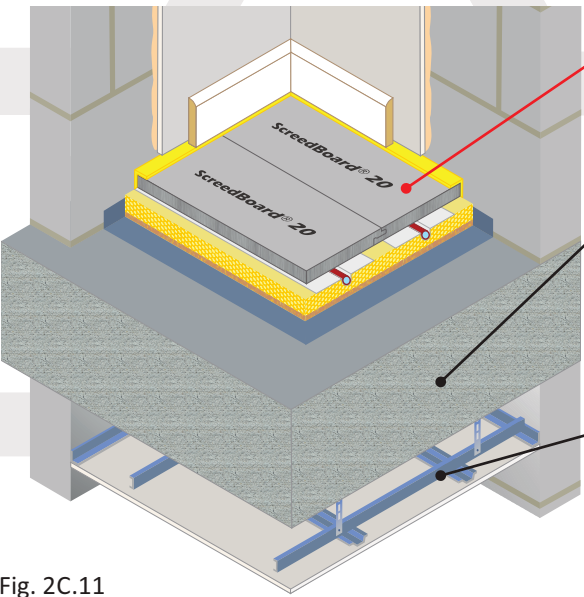


Fig. 2C.11

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/m³ density without screed
- 200mm (min) in-situ concrete slab 2400kg/m³ density with screed: 40mm sand & cement screed or 80kg/m² (min) proprietary screed directly applied to slab

See Table 2C.11a for ceiling treatment options

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NSPlus

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Table 2C.11a

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

CEMTECH
CERTIFICATION
bimtrada
2015

GWP
<5

100%
Recyclable
Recycled

zero
ODP

Environmental Credentials



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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⁽¹⁾

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

A CELLECTA Pro Adhesive

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

2 CELLECTA softwood timber batten⁽²⁾

Standard dimensions: 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

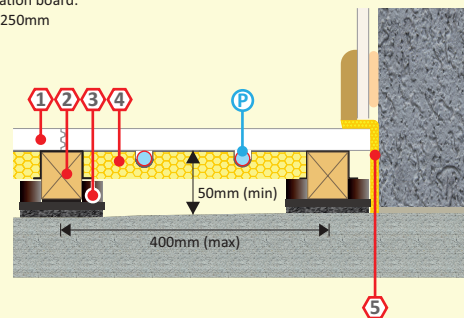
4 XFLO® JB-FF

Foil faced high strength routed XPS insulation board:
Dimensions: 30, 40, 50mm x 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)



⁽¹⁾ 28 & 30mm available to satisfy higher non-domestic loading conditions.
⁽²⁾ 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
≥+8dB



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/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:
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)

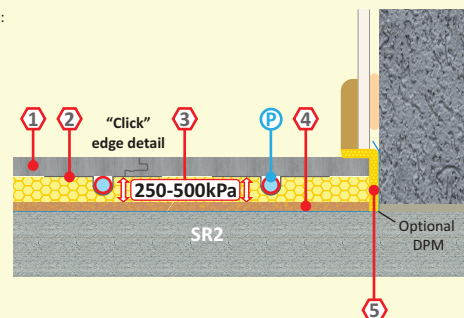
4 FIBREfon® 10

High compressive strength resilient layer:
10mm x 600mm x 1200mm
Weight: 2.20kg/m² / 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
≥+8dB

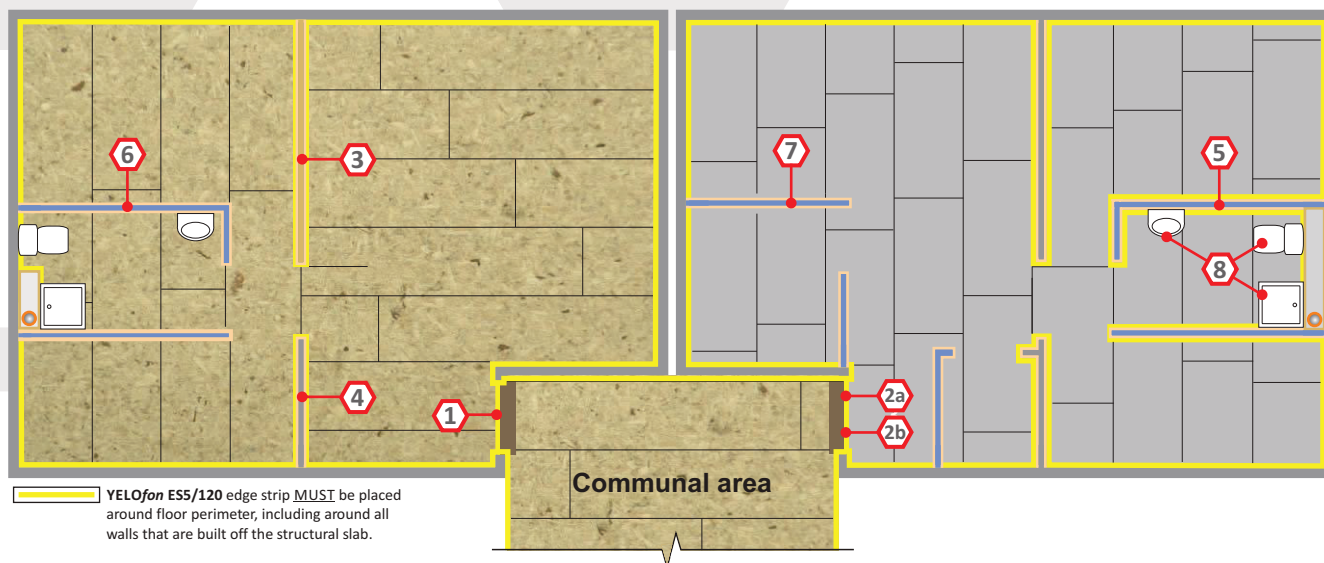


Floating floor treatment design & installation details: FFT1, 2, 3, 4 & 5

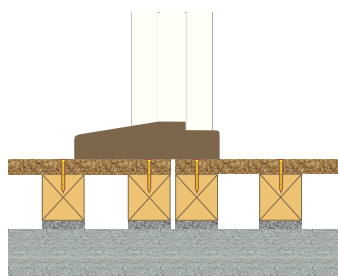
The acoustic performance of the floor will be compromised if the floating floor treatment is not completely isolated from the structural floor, soil pipes, door frames, the surrounding walls and their treatments. To address this risk, each potential problem area needs to be detailed accordingly.

Batten based floating floor treatments

Overlay floating floor treatments

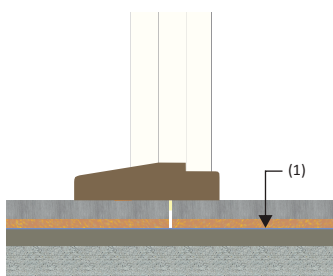


1 Door threshold FFT1, 2, 3



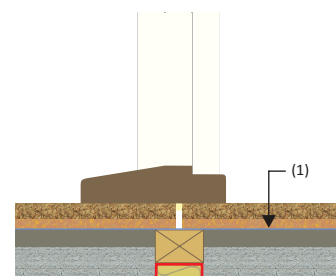
Double up battens each side of the door threshold to provide additional support. Refer to Part B and Section 2 fire safety regulations

2a Door threshold FFT4 (ScreedBoard 30)



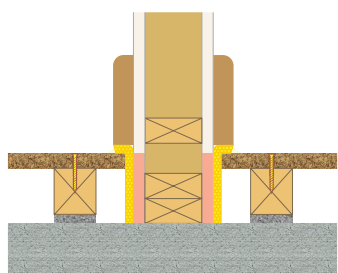
Leave a 5mm (min) gap between the habitation area treatment and the communal area treatment.

2b Door threshold FFT5



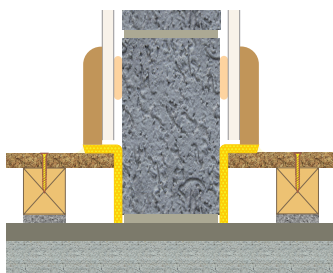
⁽¹⁾ On recently levelled floors, install a DPM below the FFT4, FFT5 floating floor treatment.

3 Timber stud partition built off the structural floor



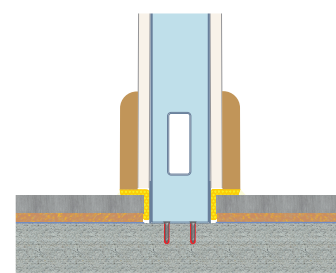
Lightweight internal walls built off the structural floor **MUST** be isolated from the floating floor treatment (FFT1, 2, 3) with YELOfon ES strip.

4 Internal blockwork wall built off the structural floor



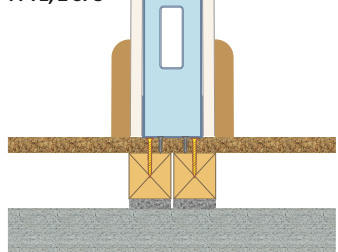
Internal block work walls built off the structural floor must be isolated from the floating floor treatment with YELOfon ES or FS strip.

5 Metal frame partition built off structural floor



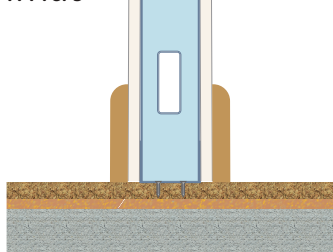
Lightweight internal walls built off the structural floor must be isolated from the floating floor treatment (FFT4, 5) with YELOfon FS strip.

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



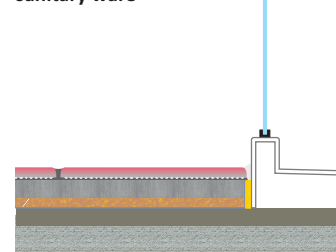
Double up battens under internal non-load bearing walls.

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.