

Separating floor - Steel-concrete composite **Robust Detail V-SF-1 / E-FS-1**

In-situ concrete slab supported by profiled metal deck

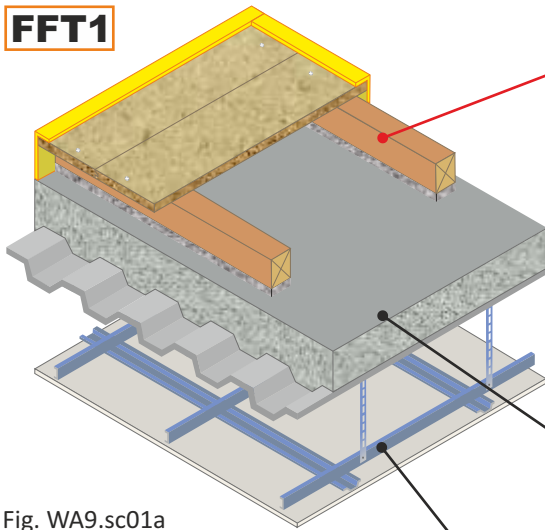


Fig. WA9.sc01a

- Floating floor treatment options**
- FFT1** - CELLECTA *DECKfon* Batten 70
 - FFT2** - CELLECTA *RUBBERfon* Cradles
 - FFT3** - CELLECTA *DECKfon* Batten 45
 - FFT4** - CELLECTA *ScreedBoard* 28
- CELLECTA *ScreedBoard* 20
+ CELLECTA *XFLO* routed XPS underfloor heating insulation board
+ CELLECTA *FIBREfon* 8, 10 or *RUBBERfon* 8 resilient layer
 - 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)
- See Table WA9.sc01 for ceiling treatment options

Ceiling



Table WA9.sc01

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 85.01b-g. 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 140-6: 1998 and rated in accordance with BS ISO 717-2: 1997 as detailed in Appendix D of the Robust Details handbook (minimum value required *rd* DL_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



Environmental Credentials



Table WA9.sc01a

FFT1 Resilient composite deep batten system

DECKfon Batten 70
 Deep acoustic batten: 75mm x 45mm x 2400mm
 *Height indicated when floor is loaded to 25kg/m²

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

Impact
 42dB $L_{nT,w}$
 rd $DL_w = 27dB$

Building Regs
 ≥+8dB

BBA VERIFIED RD DATA

YELOfon ES5/120
 Perimeter edge strip: 5mm x 120mm x 50m
 Additional layer required to complete treatment:
 18mm (min) tongue & groove flooring board

Table WA9.sc01d

FFT4 Resilient overlay platform floor system

ScreedBoard 28 Ultra high performance, dense acoustic composite overlay board
 Dimensions: 28mm x 600mm x 1200mm
 Weight: 26kg/m² / 18.72kg/board

Airborne
 53dB $D_{nT,w} + C_{tr}$

Impact
 43dB $L_{nT,w}$
 rd $DL_w = 26dB$

Building Regs
 ≥+8dB

CLASS B/F, S1 BS EN13501-1

YELOfon FS50
 Preformed flanking strip: 6mm x 50mm x 30mm x 2m

Table WA9.sc01b

FFT2 Resilient cradle and batten system

RUBBERfon Cradles
 Dimensions: 12mm high x 80mm x 80mm
 Levelling packers: 2, 3 & 5mm

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

Impact
 44dB $L_{nT,w}$
 rd $DL_w = 25dB$

Building Regs
 ≥+8dB

BBA VERIFIED RD DATA

YELOfon ES5/120
 Perimeter edge strip: 5mm x 120mm x 50m
 Additional layer required to complete treatment:
 18mm (min) tongue & groove flooring board (CELLECTA HiDECK Structural 25 shown)
 40mm (min) x 45mm timber batten
 *Height indicated when floor is loaded to 25kg/m²

Table WA9.sc01d2

FFT4 Resilient overlay platform floor system incorporating UFH

ScreedBoard 20 High conductivity overlay board
 Dimensions: 20mm x 600mm x 1200mm
 Weight: 25kg/m² 18kg/board
 Thermal resistance: 0.05m²K/W

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

Impact
 41dB $L_{nT,w}$
 rd $DL_w = 28dB$

Building Regs
 ≥+8dB

CELLECTA X-FLO routed XPS UFH insulation board (see page 81)
 Dimensions: 25-160mm x 600mm x 2500mm

Resilient layer options (see page 73 for full details)

- FIBREfon 8**: 8mm x 600mm x 1200mm
- RUBBERfon 8** (Tiled areas): 8mm x 1m x 6m
- FIBREfon 10** (All areas): 8mm x 600mm x 1200mm

YELOfon ES5/100
 Perimeter edge strip: 5mm x 100mm x 50m

Table WA9.sc01c

FFT3 Resilient composite standard batten system

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

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

Impact
 44dB $L_{nT,w}$
 rd $DL_w = 25dB$

Building Regs
 ≥+8dB

BBA VERIFIED RD DATA

YELOfon ES5/100
 Perimeter edge strip: 5mm x 100mm x 50m
 Additional layer required to complete treatment:
 18mm (min) tongue & groove flooring board

Table WA9.sc01e

FFT5 Resilient shallow overlay platform floor system

FIBREfon 12C, 21C, 28C

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

Building Regs
 ≥+8dB

12C/21C = YELOfon ES5/60
 Perimeter edge strip: 5mm x 60mm x 50m

28C = YELOfon FS50
 Preformed flanking strip: 6mm x 50mm x 30mm x 2m

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

12 Impact
 48dB $L_{nT,w}$
 rd $DL_w = 21dB$

21 Airborne
 52dB $D_{nT,w} + C_{tr}$

21 Impact
 51dB $L_{nT,w}$
 rd $DL_w = 18dB$

28 Airborne
 52dB $D_{nT,w} + C_{tr}$

28 Impact
 48dB $L_{nT,w}$
 rd $DL_w = 21dB$

No services to be installed in the floor system

Acoustic Performance

rd impact performance values quoted were conducted at Sound Research Laboratories, UKAS ref. 0444 in accordance with BS EN ISO 140-6: 1998 and rated in accordance with BS ISO 717-2: 1997 as detailed in Appendix D of the Robust Details handbook (minimum value required rd $DL_w = 17dB$).

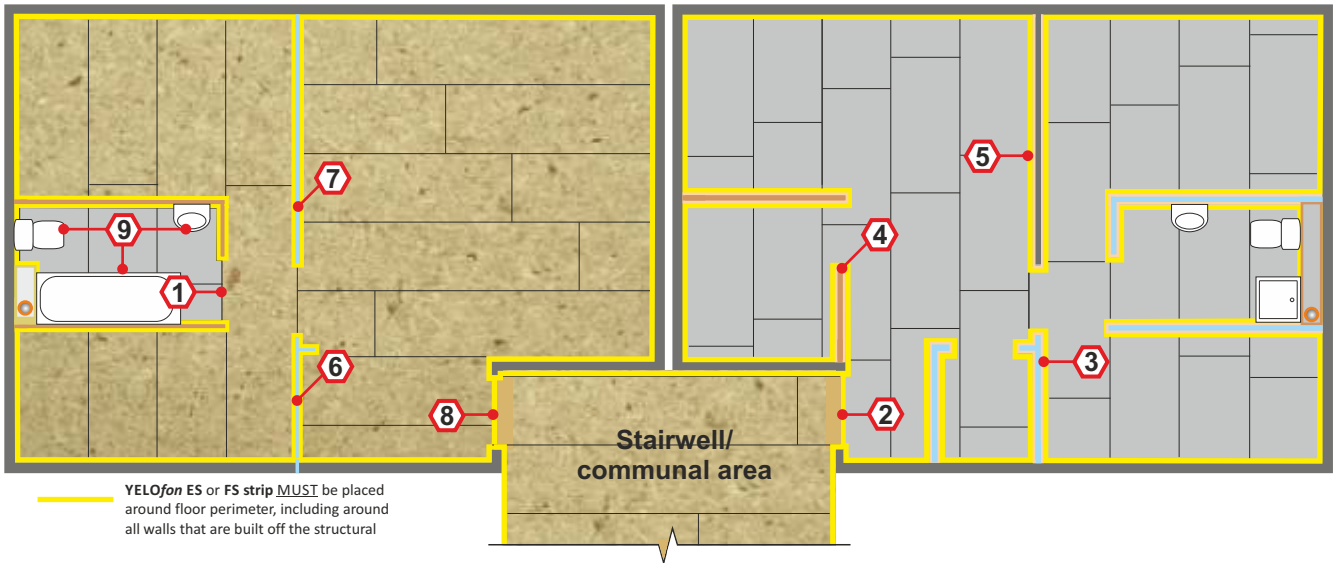
PCT values quoted are typical, based on the treatment being installed correctly and pre-completion tested, with airborne performance tested in accordance with BS EN ISO 140-4:1998 and impact performance tested in accordance with BS EN ISO 140-7: 1998.

Robust Detail floating floor treatment design & installation details

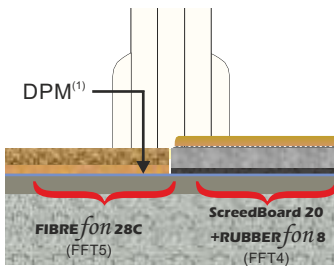
The acoustic performance of the floor will be compromised if the floating floor treatment is not completely isolated from the structural slab, soil pipes, door frames, the surrounding walls and their treatments. To address this risk, each potential problem area needs to be detailed accordingly.

Partitions built off the floating floor treatment

Partitions installed before the floor finish is laid

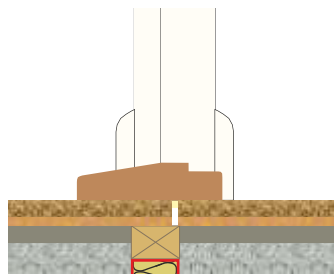


1 Junction detail: Non-tiled area meeting a tiled area



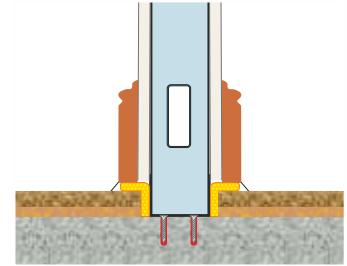
⁽¹⁾ On recently laid screeded floor, install a DPM below FIBREfon 12C, 21C, 28C and ScreedBoard based acoustic treatments.

2 Door threshold (FFT4 or 5)



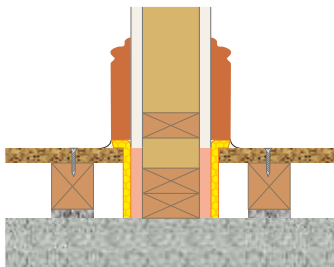
Leave a 5mm (min) gap between the habitable area treatment and the communal area treatment.

3 Metal frame partition built off the structural floor (FFT4 or 5)



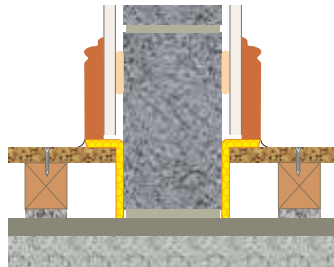
Lightweight internal walls built off the structural floor must be isolated from the floating floor treatment with YELOfon ES/FS strip.

4 Timber stud partition built off the structural floor



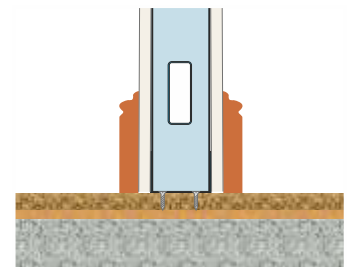
Lightweight internal walls built off the structural floor must be isolated from the floating floor treatment (FFT1, 2 or 3) with YELOfon ES strip.

5 Internal blockwork wall built off the structural floor



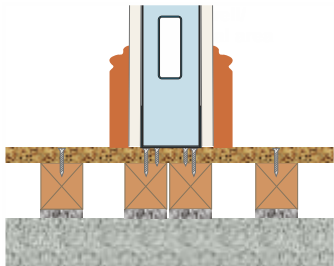
Internal block work walls built off the structural floor must be isolated from the floating floor treatment with YELOfon ES or FS strip.

6 Metal frame partition built off FFT4 or 5



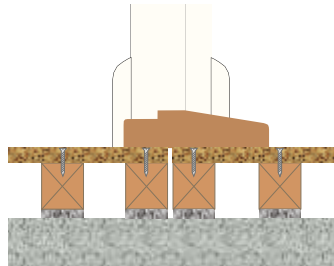
Internal non-load bearing walls can be built directly off the floor treatment. Fixings **MUST NOT** penetrate the resilient layer.

7 Metal frame partition built off FFT1, 2 or 3



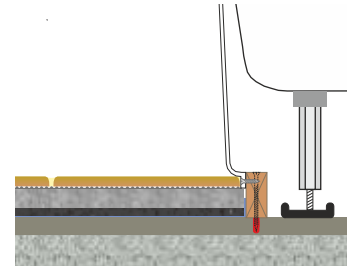
Double up battens under internal non-load bearing walls.

8 Door threshold (FFT1, 2 or 3)



At the door threshold, place one batten under the leading edge of the apartment's floor deck and one under the communal area's floor deck, leaving a 5mm (min) gap between the acoustic battens.

9 Bath surrounds and sanitary ware



Sanitary ware can either be built directly off the structural floor or off the floor treatment. For FFT1, 2 or 3 battens should be laid in a 300mm x 300mm grid under the sanitary ware.