

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

In-situ concrete slab supported by profiled metal deck

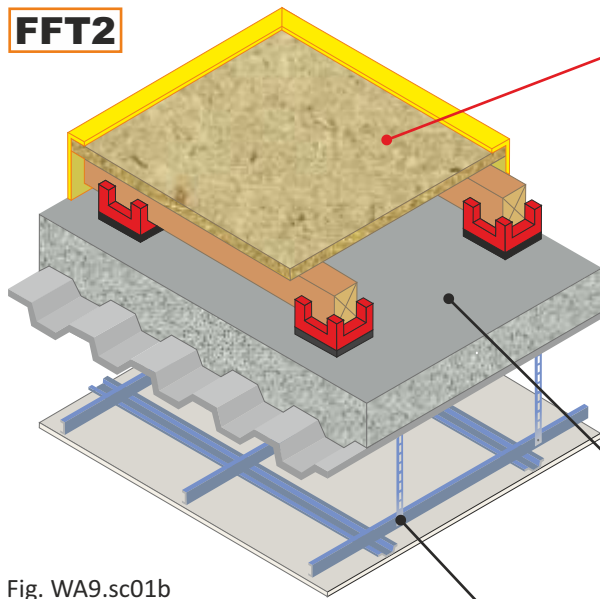


Fig. WA9.sc01b

**FASTRACKCAD**  
ARCHITECTURAL CAD DATABASES

**n55Plus**

- Floating floor treatment options**
- FFT 1 - **CELLECTA DECKfon Batten 70**
  - FFT2 - CELLECTA RUBBERfon Cradles**
  - FFT 3 - **CELLECTA DECKfon Batten 45**
  - FFT 4 - **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/m<sup>3</sup> (min)
- See Table WA9.sc01 for ceiling treatment options
- Ceiling**

Table WA9.sc01

**Ceiling Treatment Options**

**Any ceiling system**  
One layer of nominal 8kg/m<sup>2</sup> 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<sub>w</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



## 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/m<sup>2</sup>

**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/m<sup>2</sup> / 18.72kg/board

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

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

**Building Regs**  
 ≥+8dB

**BBA VERIFIED RD DATA**

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

CLASS B/F, S1  
 BS EN13501-1

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/m<sup>2</sup>

R-value: 0.0625m<sup>2</sup>/kW  
 50mm (min)\*

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/m<sup>2</sup> 18kg/board  
 Thermal resistance: 0.05m<sup>2</sup>K/W

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

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

**Building Regs**  
 ≥+8dB

**BBA VERIFIED RD DATA**

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

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

250-500kPa

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/m<sup>2</sup>

**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

45mm\* (min)

Table WA9.sc01e

**FFT5** Resilient shallow overlay platform floor system

**FIBREfon 12C, 21C, 28C**

**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  $DL_w = 21dB$

**Building Regs**  
 ≥+8dB

**BBA VERIFIED RD DATA**

**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

No services to be installed in the floor system

## Acoustic Performance

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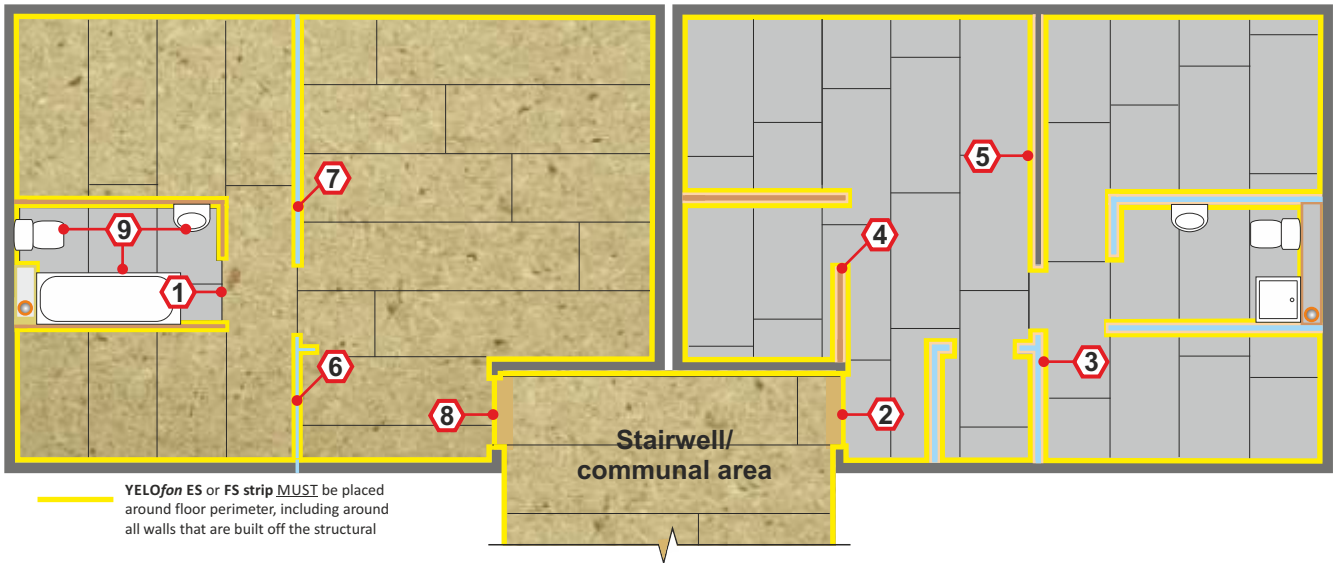
PCT values quoted are typical, based on the treatment being installed correctly and pre-completion tested, with airborne performance tested in accordance with BS EN ISO 140-4:1998 and impact performance tested in accordance with BS EN ISO 140-7: 1998.

# Robust Detail floating floor treatment design & installation details

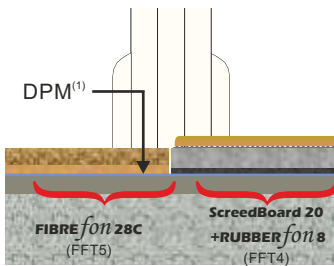
The acoustic performance of the floor will be compromised if the floating floor treatment is not completely isolated from the structural slab, soil pipes, door frames, the surrounding walls and their treatments. To address this risk, each potential problem area needs to be detailed accordingly.

Partitions built off the floating floor treatment

Partitions installed before the floor finish is laid

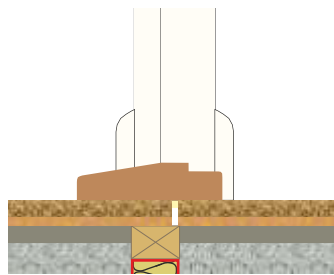


1 Junction detail: Non-tiled area meeting a tiled area



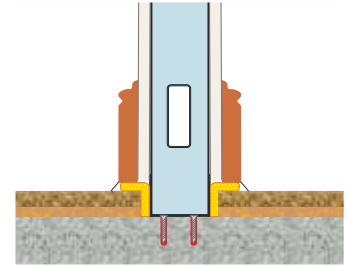
<sup>(1)</sup> On recently laid screeded floor, install a DPM below FIBREfon 12C, 21C, 28C and ScreedBoard based acoustic treatments.

2 Door threshold (FFT4 or 5)



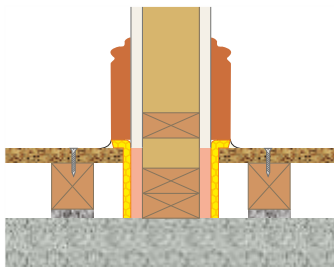
Leave a 5mm (min) gap between the habitable area treatment and the communal area treatment.

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



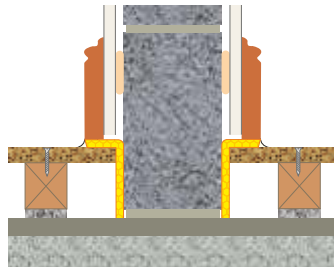
Lightweight internal walls built off the structural floor must be isolated from the floating floor treatment with YELOfon ES/FS strip.

4 Timber stud partition built off the structural floor



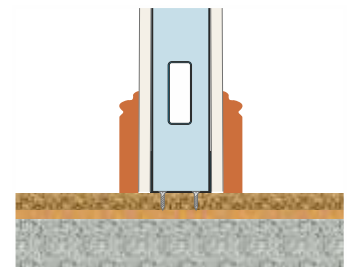
Lightweight internal walls built off the structural floor must be isolated from the floating floor treatment (FFT1, 2 or 3) with YELOfon ES strip.

5 Internal blockwork wall built off the structural floor



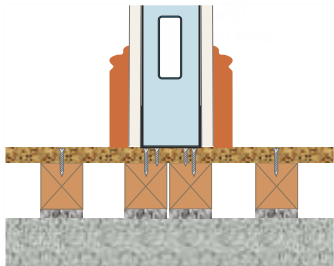
Internal block work walls built off the structural floor must be isolated from the floating floor treatment with YELOfon ES or FS strip.

6 Metal frame partition built off FFT4 or 5



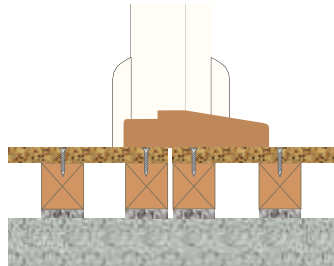
Internal non-load bearing walls can be built directly off the floor treatment. Fixings **MUST NOT** penetrate the resilient layer.

7 Metal frame partition built off FFT1, 2 or 3



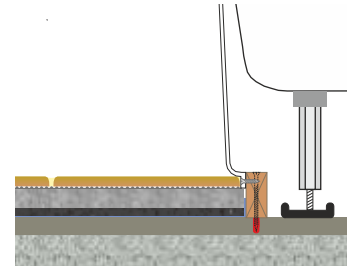
Double up battens under internal non-load bearing walls.

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.