

# UltraBEAM metal joist separating floor

# Robust Detail E-FS-2

**CELLECTA DECKfon® Batten 70 floating floor system**  
**Hadley Group UltraBEAM metal joists**  
**Use with lightweight metal frame walls only**

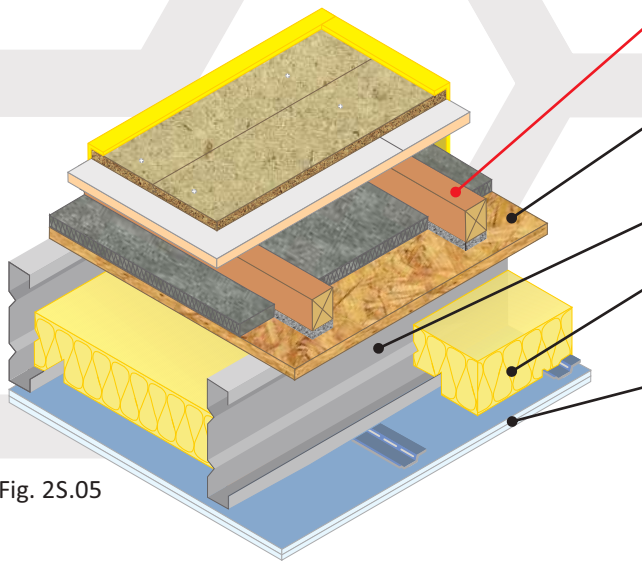


Fig. 2S.05

<b>Floating floor treatment</b>	<b>FFT1 - CELLECTA DECKfon® Batten 70</b> (See Table 2S.05a/b for full details)
<b>Floating decking</b>	22mm thick (min) wood based board, density 600kg/m <sup>3</sup>
<b>Joists</b>	225mm (min) deep UltraBEAM metal joists
<b>Absorbing material</b>	○ 50mm <b>CELLECTA FIBREfon® Micro 50</b> ● 100mm (min) quilt insulation (10-36kg/m <sup>3</sup> )
<b>Ceiling</b>	See Table 2S.05c for ceiling treatment options

**Robust Detail option, change to E-FS-3**  
 Refer to page 7 on how to change a registered Robust Detail

## Installation Options

Table 2S.05a

Table 2S.05c

**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>
- YELOfon® ES5/120**  
Perimeter edge strip: 5mm x 120mm x 50mm

**R-value: 0.237m<sup>2</sup>K/W**  
70mm\* (min)

**Additional component required to complete treatment**  
 18mm (min) tongue & groove flooring board  
 19mm Gypsum-based board nominal 13.5kg/m<sup>2</sup>  
 Sound absorbing quilt laid between battens:  
 ○ 15mm **CELLECTA FIBREfon Micro 15** non-itch polyester quilt  
 ● 25mm (min) 10 - 33kg/m<sup>3</sup> or 13mm (min) 33 - 36kg/m<sup>3</sup> mineral wool

<b>Airborne</b>	51dB $D_{nT,w} + C_{tr}$ $rd \Delta R_w = 19dB$
<b>Impact</b>	52dB $L_{nT,w}$ $rd \Delta L_w = 16dB$
<b>Building Regs</b>	≥+5dB
<b>BBA VERIFIED</b>	<b>RD DATA</b>

Table 2S.05b

**FFT1 Resilient composite deep batten system incorporating UFH**

- HiDECK® Structural 25<sup>(1)</sup>**
- CELLECTA Pro Adhesive**
- DECKfon® Batten 70**
- XFLO® JB-FF** foil faced XPS insulation brd
- YELOfon® ES5/120** edge strip
- UFH water pipe** (by others)

**R-value: 0.062m<sup>2</sup>K/W**  
70mm\* (min)  
400mm (max)

**Additional component required to complete treatment**  
 Sound absorbing quilt laid between battens:  
 ○ 15mm **CELLECTA FIBREfon Micro 15** non-itch polyester quilt  
 ● 25mm (min) 10-33kg/m<sup>3</sup> or 13mm (min) 33-36kg/m<sup>3</sup> mineral wool

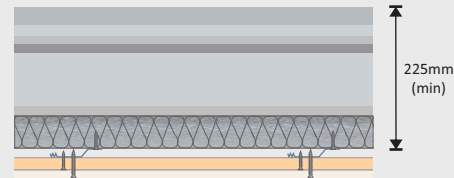
<b>Airborne</b>	52dB $D_{nT,w} + C_{tr}$ $rd \Delta R_w = 18dB$
<b>Impact</b>	52dB $L_{nT,w}$ $rd \Delta L_w = 16dB$
<b>Building Regs</b>	≥+5dB
<b>CLASS A1</b>	

## Ceiling Treatment Options

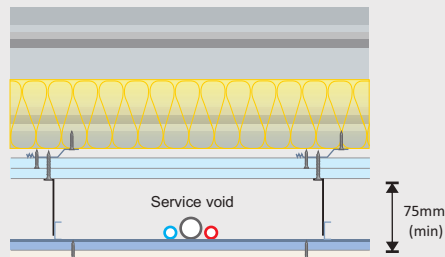
**Ceiling boards must not penetrate or touch joists**  
 16mm (min) metal resilient bars mounted at right angles to the joist at 400mm centres.

**Ceiling treatment**  
**CT1** Two layers of gypsum-based board, composed of 19mm (nominal 13.5kg/m<sup>2</sup>) fixed with 32mm screws and 12.5mm (nominal 10kg/m<sup>2</sup>) fixed with 42mm screws, with all joists staggered.

**CT2** Two layers of gypsum-based board, composed of 15mm (nominal 12.5kg/m<sup>2</sup>) fixed with 25mm screws and a second layer of 15mm (nominal 12.5kg/m<sup>2</sup>) fixed with 42mm screws, with all joists staggered.



**Sacrificial ceiling (optional)**  
 Metal ceiling system with a 75mm (min) void fixed to underside of primary ceiling. One layer of nominal 8kg/m<sup>2</sup> gypsum based board.



**Sound absorbing quilt fitted between joists**  
 ○ 50mm **CELLECTA FIBREfon MICRO 50**  
 ● 100mm (min) mineral wool quilt -10-36kg/m<sup>3</sup>

## 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. Airborne performance tested in accordance with BS EN ISO 10140-2 and BS EN ISO 10140-4 and rated in accordance with BS EN ISO 717-1: 2013 as detailed in Appendix C of the Robust Details hand book (minimum value required  $rd \Delta R_w + C_{tr} = 13dB$   $rd \Delta L_w = 15dB$ ). 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.

