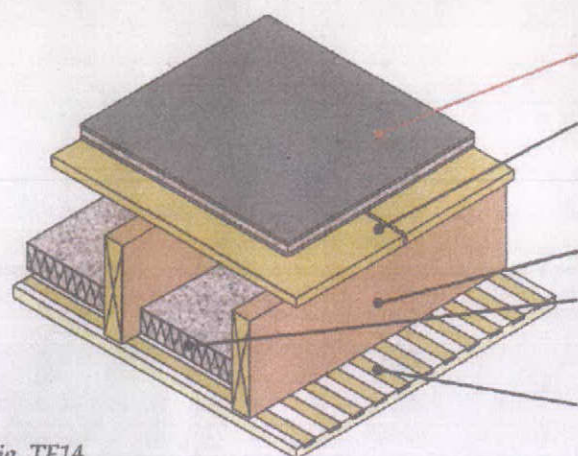


Structural separating floor - Timber (existing)

PCT solution

- 5 NOV 2012
Existing timber joists
Acoustic treatment laid on sub-floor



Floating floor treatment

Floor decking

Joists

Absorbing material

Ceiling

DECKfon Ultramat 15

(See Table TF14 for full details)

18mm thick (min) wood based board, density 600kg/m³ (min) or existing floor boards (with all gaps sealed with suitable flexible mastic)

Solid timber joists

- 50mm FIBREfon MICRO SLAB 50
- 100mm (min) mineral wool insulation (45kg/m³) between joists

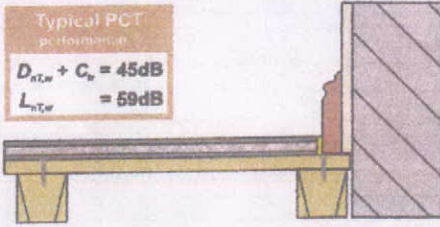
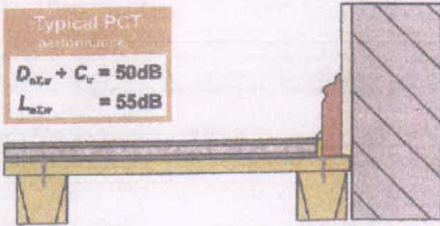
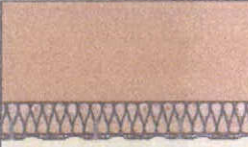
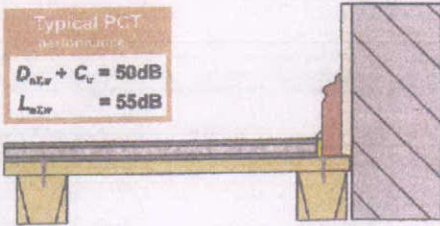
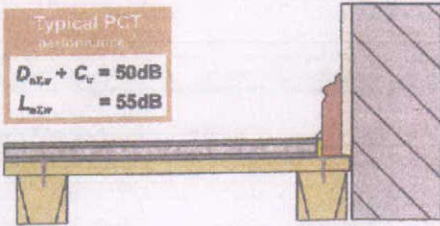
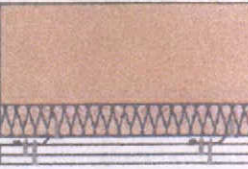
See Table TF14 for ceiling treatments

Fig. TF14



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Table TF14

PCT floating floor treatment	Perimeter resilient flanking strip required	Ceiling treatment options
<p>DECKfon[®] Ultramat 15 High density composite acoustic overlay mat</p> <p>Typical PCT performance $D_{nT,w} + C_v = 45\text{dB}$ $L_{w,T,w} = 59\text{dB}$</p> <p>Product information Mat dimensions: 15mm x 1000mm x 1200mm Edge profile: Square Weight: 15kg/m² / 18.00kg per mat</p> 	<p>YELOfon[®] ES5/15 Polyethylene foam flanking strip: 5mm x 15mm x 50m installed around the perimeter of the flooring board to isolate floor from walls and skirting.</p> 	<p>Ceiling treatment Plaster and lath ceiling with minimum mass of 16kg/m², fixed directly to floor joists.</p> 
<p>DECKfon[®] Ultramat 15 High density composite acoustic overlay mat</p> <p>Typical PCT performance $D_{nT,w} + C_v = 50\text{dB}$ $L_{w,T,w} = 55\text{dB}$</p> <p>Product information Mat dimensions: 15mm x 1000mm x 1200mm Edge profile: Square Weight: 15kg/m² / 18.00kg per mat</p> 	<p>YELOfon[®] ES5/15 Polyethylene foam flanking strip: 5mm x 15mm x 50m installed around the perimeter of the flooring board to isolate floor from walls and skirting.</p> 	<p>Ceiling boards must not penetrate or touch the floor joists</p> <p>16mm (min) metal resilient bars mounted at right angles to the joist at 400mm centres.</p> <p>Ceiling treatment Two layers of gypsum-based board, composed of 15mm (nominal 12.5kg/m²) fixed with 25mm screws and a second layer of 15mm (nominal 12.5kg/m²) fixed with 42mm screws, with all joists staggered.</p> 

Construction notes
Materials must be installed in accordance with manufacturers' instructions to achieve stated acoustic values. Wall treatments **MUST** be isolated from the floor treatment with YELOfon ES5/15 flanking strip. Ensure services do not come into contact with the floor treatment.

Acoustic values

⁽¹⁾ Values quoted are typical, based on the treatment being installed correctly, covered with a 9mm MDF board and pre-completion tested.
Airborne performance tested in accordance with BS EN ISO 140-4:1998
Impact performance tested in accordance with BS EN ISO 140-7: 1998

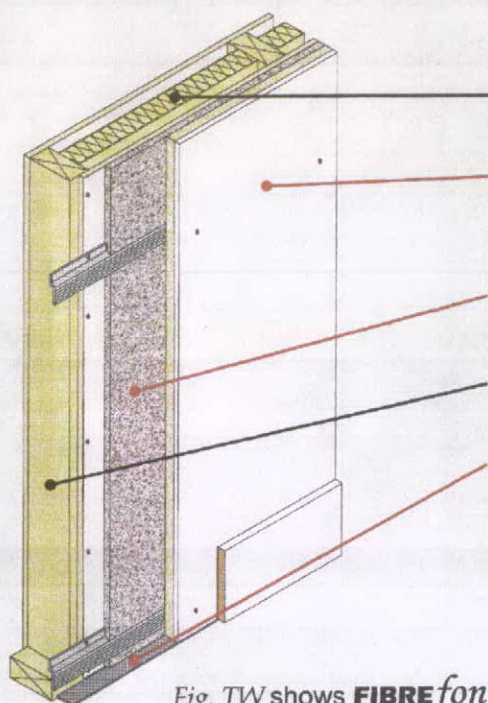
Timber stud wall

PCT / up-grade solution

Composite wall lining

Suitable for new and existing timber stud walls

Acoustic treatment indirectly fixed to timber studs



Absorbing material (existing)	25mm (min) - 50mm (max) mineral wool (10 - 45kg/m ³) between studs
Wall treatment	FIBREFON HIGYP 32 fixed to 16mm resilient bars set at 600mm (max) centres (See Table TW for treatment options)
Absorbing material	15mm FIBREFON MICRO SLAB 15 between resilient bars
Timber stud wall (existing)	89mm (min) x 38mm timber stud wall set at 600mm (max) centres
Perimeter flanking strip	Cellesta J-strip self-adhesive acoustic foam strip



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Fig. TW shows **FIBREFON HIGYP 32** fixed to 16mm resilient bars, fixed to one side of an existing timber stud wall (TW.T1)

Table TW

PCT wall lining options

	Timber stud wall	TW. T1	TW. T2	TW. T3	TW. T4
Typical PCT performance	89mm x 38mm timber studs at 600mm centres 25 - 50mm mineral wool fitted in between studs. 1 x 12.5mm plasterboard 8kg/m ² fixed to both sides.	FIBREFON HIGYP 32 fixed to resilient bars set at 600mm centres fixed to one face of the existing timber stud wall. Resilient bar cavity filled with FIBREFON Micro Slab 15 .	FIBREFON HIGYP 32 fixed to resilient bars set at 600mm centres fixed to one face of the existing timber stud wall. Resilient bar cavity filled with FIBREFON Micro Slab 15 . Additional layer of gypsum-based board 8kg/m ² (min) fixed to opposite face.	FIBREFON HIGYP 32 fixed to resilient bars set at 600mm (max) centres fixed to both sides of the timber stud. FIBREFON Micro Slab 50 fitted in between studs.	FIBREFON HIGYP 32 fixed to resilient bars set at 600mm (max) centres fixed to both sides of the timber stud. FIBREFON Micro Slab 50 fitted in between studs. Additional layer of gypsum-based board 8kg/m ² (min)
R_w	40dB	54dB	56dB	58dB	60dB
$R_w + C_{tr}$	35dB	45dB	49dB	49dB	52dB
Improvement on basic timber stud partition ΔR_w	-	14dB	16dB	18dB	20dB
Wall detail					
Perimeter resilient flanking strip required					
Fire resistance	30 minutes	30 minutes	60 minutes	60 minutes	60 minutes

Acoustic values

Test data quoted has been conducted at Sound Research Laboratories, Sudbury, UKAS ref. 0444. Airborne results tested in accordance with BS EN ISO 140-3: 1995 and rated in accordance with BS ISO 717-1: 1997.

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