

Precast concrete slab

Screed laid on *Cellecta* YELOfon HD10+ resilient layer *System*

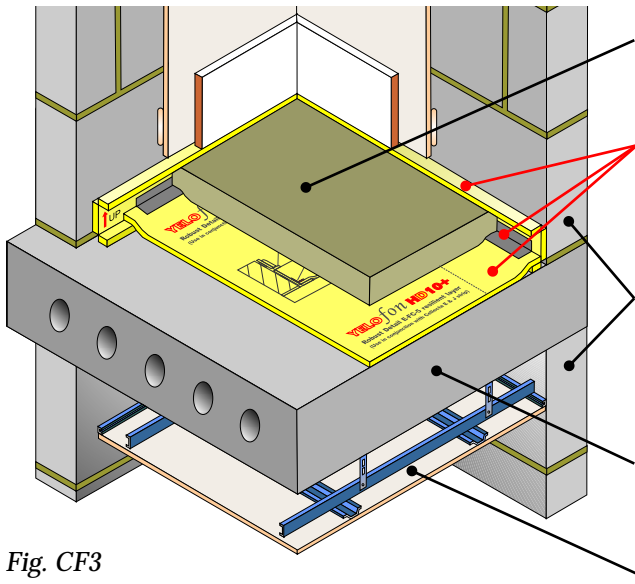


Fig. CF3

Screed	<ul style="list-style-type: none"> • 65mm (min) sand:cement screed • 40mm (min) proprietary screed of nominal 80kg/m² mass per unit area
Resilient layer	YELOfon HD10+ with E-strip perimeter edging and J-strip acoustic joining tape (See Table CF3 for full details)
External flanking walls	<ul style="list-style-type: none"> • 100mm (min) aggregate concrete block 1350 - 1600kg/m³ or 1850 - 2300kg/m³ • 100mm (min) aircrete block 450 - 800kg/m³
Structural floor	<ul style="list-style-type: none"> • 150mm (min) pre-cast concrete floor plank slab • 300kg/m² (min) mass per unit area
Ceiling	See Table CF3 for ceiling treatment options



Table CF3

Robust detail approved resilient layer installation options	Perimeter resilient flanking strip required	Ceiling treatment options						
<p>YELOfon® HD10+ 10mm high density polyethylene foam</p> <p>YELOfon® J-strip Acoustic joining tape</p> <p><5 GWP All components**</p> <p>Underfloor heating system within screed (with thermal insulation) X2i / X2i^e High performance extruded polystyrene</p> <p>Product dimensions HD10+: 10mm (t) x 1.5m (w) x 33.33m (l) E-Strip: 7mm (t) x 200mm (w) x 33m (l) J-strip: 2.5mm (t) x 75mm (w) x 33m (l)</p> <p>** Excluding X2i.</p> <p>Underfloor heating systems within screed (without thermal insulation) Proprietary screeds If using a proprietary free flowing screed, HD10+ rolls can be tightly butted together and the joint sealed with J-strip. Care should taken to ensure there are no gaps in the resilient layer. Cover the HD10+ with a 500 gauge (min) polythene sheet, taping all joints and lapping up around the perimeter by 150mm.</p>	<p>YELOfon® E-strip</p> <p>Polyethylene foam flanking strip: 7mm (t) x 200mm (h) x 33m (l) with Surebond facing and self-adhesive backing, to suit 65mm - 100mm screeds, placed around the perimeter of the floor to isolate the screed from the walls and skirting. Seal all joints with J-strip.</p>	<p>CT0 - Metal ceiling - 150mm void To be used with 150mm (min) depth concrete planks</p> <p>150mm (min)</p> <p>One layer of nominal 8kg/m² gypsum-based board</p> <p>CT1 - Metal ceiling - 100mm void To be used with 200mm (min) depth concrete planks</p> <p>100mm (min)</p> <p>One layer of nominal 8kg/m² gypsum-based board</p>						
	<p>Robust Detail mean performance</p> <p>$D_{nT,w} + C_v = 52\text{dB}$ $L_{nT,w} = 54\text{dB}$</p>	<p>Typical PCT performance⁽²⁾</p> <p>$D_{nT,w} + C_v = 52\text{dB}$ $L_{nT,w} = 54\text{dB}$</p> <p>Code credits*</p> <table border="1"> <tr> <td>Mat 1</td> <td>Pol 1</td> <td>Hea 2</td> </tr> <tr> <td>0.5</td> <td>1</td> <td>3</td> </tr> </table>	Mat 1	Pol 1	Hea 2	0.5	1	3
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* Code for Sustainable Homes (CSH) credits quoted are typical. Mat 1 value taken from the BRE Green Guide. Pol 1 credit is only awarded if all the other insulation products used have a GWP of <5. Hea 2 credits are based on the floor being pre-completion tested and the separating wall performing to at least the same acoustic standard. Credits subject to relevant category weighted value. See page 5 for further information.

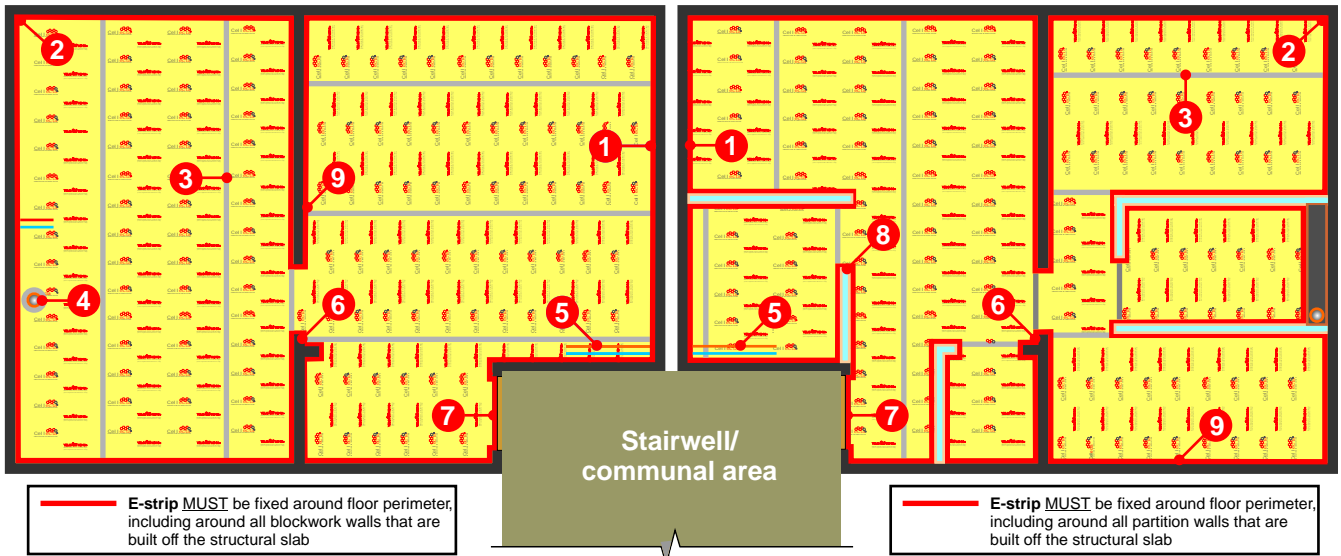
Acoustic values
⁽²⁾ Values quoted are typical, based on the treatment being installed correctly and pre-completion tested.
Airborne performance tested in accordance with BS EN ISO 140-4:1998
Impact performance tested in accordance with BS EN ISO 140-7: 1998

Design & installation details - Robust detail E-FC-5

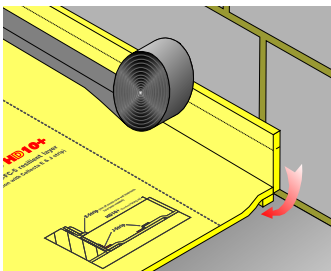
The acoustic performance of the floor will be compromised if the screed is not completely isolated from the structural slab, soil pipes, door frames, the surrounding walls and their treatments. To address this risk, each potential problem area needs to be detailed accordingly.

Partitions installed off the floor screed

Partitions installed before the floor finish is laid

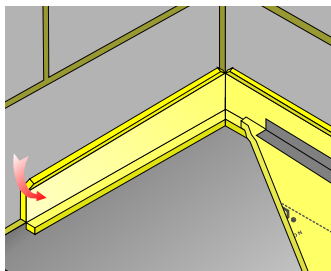


1 Perimeter detail



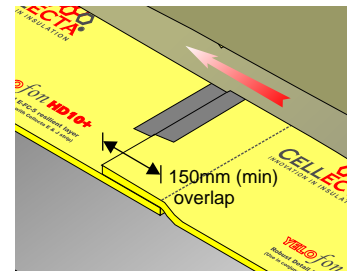
Around the whole floor perimeter stick the E-strip to the wall, folding up the bottom flap and overlap with the HD10+ (by at least 40mm). Seal all joints with J-strip.

2 Room corners



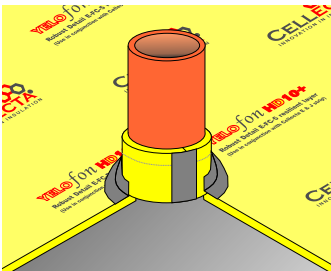
In corners, mitre the E-strip's upper and lower flaps to allow them to fold in. The bottom flap must then be overlapped by the HD10+ by at least 40mm, with the joint sealed with J-strip.

3 Overlapping rolls



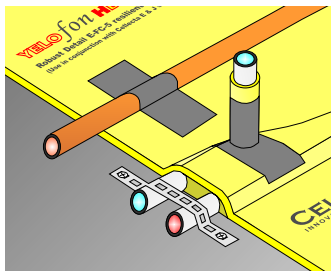
Overlap each roll of HD10+ by at least 150mm and seal all joints with J-strip. To totally eliminate the risk of screed migration, cover the HD10+ with a polythene sheet sealing all joints with a suitable tape.

4 Soil pipes



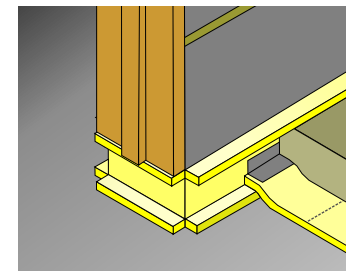
Soil pipes and services that penetrate through the HD10+ or E-strip **MUST** be isolated from the screed by wrapped them in E-strip and sealing the joints with J-strip.

5 Services



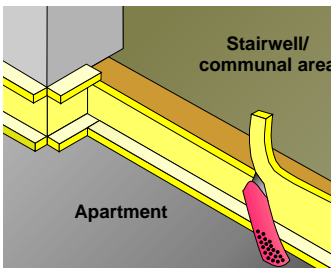
Services should be secured to the structural slab with straps and covered with HD10+. Alternatively, they can be laid over the HD10+ and held in position with J-strip until the screed is applied. Services that penetrate the resilient layer **MUST** be isolated from the surrounding structure by wrapping them in E-strip, and sealing all joints with J-strip.

6 Doorways



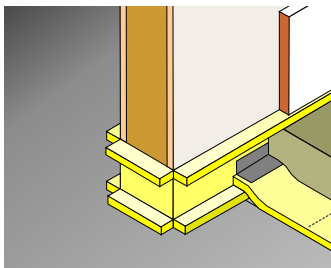
Ensure E-strip goes under **ALL** door frames to eliminate the risk of acoustic flanking.

7 Thresholds



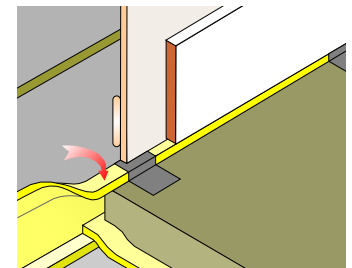
To stop acoustic flanking at the threshold, fix a timber batten across the door opening to act as a "stop" and stick the E-strip to it. Trim off excess strip with a sharp knife.

8 Partitions



Should partitions be built off the sub-floor, stick the E-strip to the partition, folding up its bottom flap. Overlap the HD10+ and seal all joints and gaps with J-strip.

9 Wall treatments



Fold down the upper section of the E-strip and tape in position. Ensure **ALL** wall treatments including plaster, plasterboards, plaster adhesive and skirting boards are completely isolated from the screed.