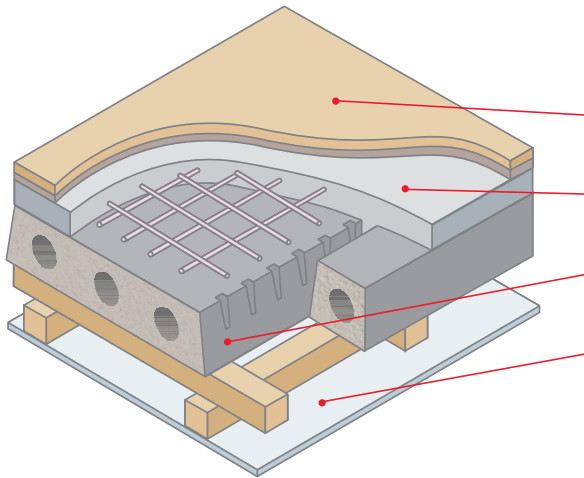


Stowell solutions for separating floors to help satisfy Robust Details part E

Robust Details E-FC-1 (RSC)

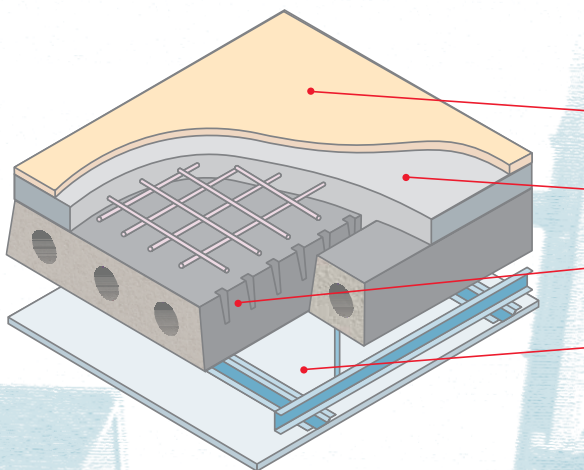


- precast concrete plank
- reinforced structural concrete
- floating floor

Floating floor	See section 4 of E-FC-1 in the Robust Details Part E Handbook (FFT 1,2,3, 4 or 5)
Structural concrete	70mm (min) 35N/mm ² (C28/35 10mm max. aggregate S3 + A142 mesh)*
Structural floor	150mm (min) precast structural plank 300kg/m ² (min) mass per unit area (Stowell Hollowcore HC300 – 155mm deep, 320kg/m ²)
Ceiling	See section 3 of E-FC-1 in the Robust Details Part E Handbook (CT1, 2 or 3).

Diagram shows FFT5 type floating floor treatment with CT2 type ceiling treatment.

Robust Details E-FC-9 (RSC)



- precast concrete plank
- reinforced structural concrete
- 3mm Thermal Economics isorubber top

Floor covering	3mm Thermal Economics IsoRubber top (bonded with isobond adhesive)
Structural concrete	70mm (min) 35N/mm ² (C28/35 10mm max. aggregate S3 + A142 mesh)*
Structural floor	150mm (min) precast structural plank 300kg/m ² (min) mass per unit area (Stowell Hollowcore HC300 – 155mm deep, 320kg/m ²)
Ceiling	CT0 metal ceiling system providing 150mm (min) ceiling void with one layer of nominal 8 kg/m ² gypsum-based board.

Diagram shows CT0 type ceiling treatment.

*Please see guidelines for structural concrete topping applied to reinforced precast concrete flooring overleaf.

Robust Details are construction solutions which provide an alternative to pre-completion sound testing as a method of complying with Part E (resistance to the passage of sound) of the Building Regulations (England and Wales). Stowell concrete products enable builders to meet these regulations – provided the correct treatments are followed – when constructing new-build attached dwellings, flats and apartments. A synopsis of the construction treatments is provided above, with full details available from Robust Details Ltd (telephone 0870 240 8209 or www.robustdetails.com).

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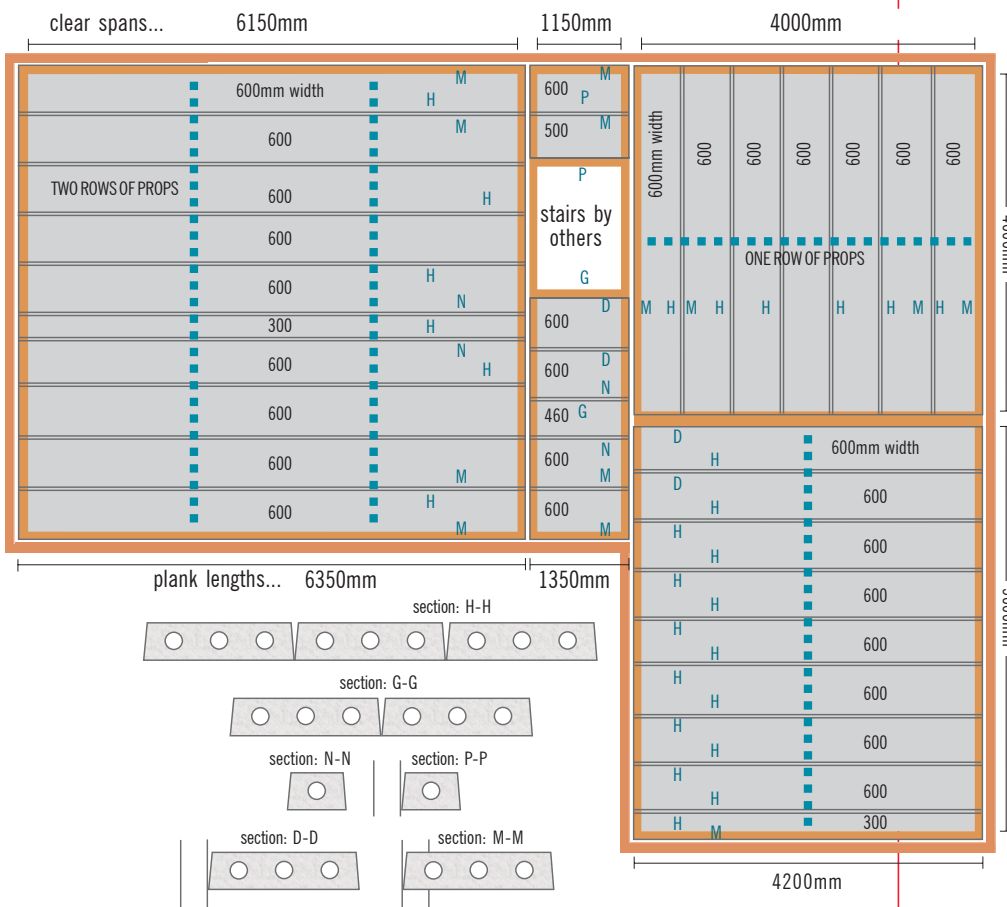
www.stowellconcrete.co.uk

Hollowcore layout and load tables

...for guidance only

To satisfy Robust Details E-FC-1 (RSC) and E-FC-9 (RSC)

A floor layout arrangement using Stowell HC300 planks



Stowell hollowcore flooring units are produced in the standard 155mm × 600mm section to a selection of lengths ranging from 1.2 metres to a usefully long 7.0 metres – available in increasing increments of 50mm.

This table refers to simple, uniformly distributed loads and is only a guide...

HC 300 three core	Loadings in kN/m ²							
	1.5	2.0	2.5	3.0	3.5	4.0	5.0	7.5
Imposed live load	1.5	2.0	2.5	3.0	3.5	4.0	5.0	7.5
Partition allowance	0.5	0.5	1.0	1.0	1.0	–	–	–
Finishes & ceilings	0.3	0.3	0.3	0.3	0.3	0.15	0.15	0.15
	Max clear span in metres							
8mm reinforcement type A	5.40	5.30	5.05	4.95	4.80	4.95	4.70	4.20
10mm reinforcement type B	6.00	5.85	5.60	5.50	5.30	5.50	5.30	4.80
12mm reinforcement type C	6.40	6.25	6.00	5.90	5.80	5.90	5.70	5.15
16mm reinforcement type D	6.80	6.65	6.45	6.30	6.20	6.30	6.10	5.60

Guidelines for structural concrete topping applied to reinforced precast concrete flooring

1. Check topping design requirements; i.e. thickness and 28 days cube strength.

2. Check propping requirements. Units spanning less than 2.0m are unlikely to require propping.

– For units between 2.0 and 4.5m, provide a single row of props.

– For units between 4.5 and 7.0m, provide two lines of props. After the reinforced hollowcore units have been placed upon bearings the self-weight is propped out before the topping is applied. This means that the weight of the unit and the structural topping are supported on props, and no significant load goes on the bearings. Take into account the loading from props onto the floor below.

3. Clear all rubbish, loose concrete, chippings, etc. from the upper surface and clean out joints between units. NB: Units in composite construction are usually ungrouted.

4. Keep upper surface well wetted for 24 hours before application of topping concrete.

5. Clean off any standing water before application of topping concrete.

6. Minimum 35N/mm² concrete cube strength at 28 days (C28/35 max. 10mm aggregate S3 + A142 mesh at mid depth).

7. Leave the props in until cube strength is achieved OR for at least seven days – and load with caution for additional 21 days.

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All products are available ex works.

Prices on application.

Telephone our sales office for further information and quotations.

STOWELL
CONCRETE LIMITED

Arnolds Way, Yatton, Bristol BS49 4QN
also at Holcombe, Cheddar & Weston-s-Mare
Tel: 01934 834000 Fax: 01934 835474
www.stowellconcrete.co.uk