RACKHAM TS SYSTEM - TECHNICAL SPECIFICATION

RHF BEAMS

Rackham standard and wide 175mm beams can be used with TS infill panels. The type, centres and quantities of beams are shown on the relevant Rackham drawings. (NB. Wide beams are usually indicated by a bold line and are noted accordingly on the drawing beam schedule). The beams should be positioned as indicated on the Rackham drawing.

TS INFILL COMPONENTS

Specific details and shape of all the components can be found on the relevant TS System data sheet (TS.DS_0220).

All the EPS panels are available in either white or grey polystyrene dependant on the u value required.

The locations of the standard size panels are indicated by the dimension '536' (between the beams) and the half panels by the dimension '343' (between the beams) on the relevant Rackham drawing.

The positions of the make-up pieces are indicated by the words 'make-up' between the beams – these sheets will require cutting to size to suit the beam centres.

The top sheets (2400mmx1200mm) are supplied in different thicknesses (between 75mm and 200mm dependant on the u value required. Perimeter edge strips are supplied and should be used where necessary to prevent cold bridging.

NB. It is important that only the top sheets supplied by Rackhams are used, other products may not have the required structural strength.

IMPOSED LOADS

The maximum imposed load on the finished (concreted) floor should not exceed 1.5kN/m² at any time. Construction loads exceeding 1.5kN/m² must not be applied to the finished floor.

PARTITION LOADINGS

The finished floor is designed to support studwork partitions, where these have been confirmed by the Customers drawings and are indicated on the relevant Rackham drawings, maximum 1.0kN/m or 0.5kN/m²

Non-loadbearing block partitions, maximum 3.0kN/m, can be built off the finished floor only in the locations indicated on the relevant Rackham drawing.

NB. The finished TS System will support a maximum partition load of 3.0kN/m where indicated on the relevant Rackham drawing. Please see the relevant Rackham drawing and BBA Certificate No. 16/5360 second issue, for details.

THERMAL INSULATION

The panels are available in white or more thermally efficient grey EPS.

The top sheet can be supplied in different thicknesses and grades to achieve most thermal requirements – see www.rackhamhousefloors.co.uk or Agrément Certificate No. 16/5360, second issue for more information.

FINISHES

The Rackham TS System should be finished with a reinforced 75mm thick C28/C35 structural reinforced topping. Contact Rackham Technical Dept. for details or see Agrément Certificate No. 16/5360 second issue, table 3.

For further information on any aspect of the TS System contact the Rackham Technical Department on 01924 455876 or email estimating@rackhamhousefloors.co.uk

DAMP PROOF COURSE AND VENTILATION

Damp proofing and ventilation arrangements must be in accordance with normal good practice.

A continuous damp proof course (dpc) should be laid along the support wall below the floor.

Where required, gas barrier membranes should be laid under the EPS top sheet.

A ventilation void of at least 150mm measured from the soffit of the beams should be provided below the floor construction.

FIXING

1. Beams should be lifted as near to each end as possible and always handled and stacked the 'right way up'. Timber bearers should be used for stacking, placed within 300mm of the beam ends.
2. All inner skin cavity wall and internal load-bearing blockwork walls adjacent (parallel) to start and end panels (indicated on the relevant Rackham layout drawing) must be brought up one extra course to provide a vertical surface against which the panels can be installed. The blockwork should be allowed to cure before installation of the start/end panels.
3. The TS Start/End panels should be positioned against the inside face of the raised wall. The adjacent beam should then be moved into position to support the profiled edge of the panel. The square panel face provides a tight friction fit against the block wall.
   The remaining beams can then be installed using Rackham Closure Blocks or a suitable gauge – dependant on the required beam centres between the beams ends to ensure the correct centres shown on the Rackham layout.
4. Where beams have to be positioned at irregular (maximum 400mm) centres indicated on the Rackham drawing as 'make-up', due to obstacles i.e. service entry points or to facilitate the installations of start/end panels, the supplied 100mm thick make-up sheet must be cut to size, fitted tightly between the beam and bearing on the beams shoulders.
   Where necessary, the panels can be cut to length with a handsaw – the minimum usable panel length should not be less than 300mm.
5. The remaining area of the floor should then be infilled with full and half panels as required.
6. If required, gas/radon barriers should be installed following the manufacturers' instructions over the top of the beams and panels under the EPS top sheet.
7. The EPS top sheet (2400mx1200mm) insulation is then laid on top of the infilled beams and over any membrane. Where necessary this should be cut to size using a suitable handsaw.
8. Perimeter edge strips should be installed, where necessary to prevent cold bridging.
9. The 75mm C28/C35 structural reinforced concrete topping (see BBA Agrément Certificate No. 16/5360, second issue, table 3 for suitable specifications) can then be carefully applied. Concrete must not be dropped from a height exceeding 500mm and any heaping must not exceed a height of 300mm.
10. Care must be taken to avoid overloading the floor/EPS panels and top sheet during construction.

Throughout the fixing process, due consideration should be given to relevant Health & Safety regulations and Rackham Product Information Sheets.

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