38mm Flooring

April 2012 Supersedes all previous data

Physical properties

Strebord 'C' P6 industrial flooring panels are manufactured in accordance with BS EN 312-6:2010 (P6) Particleboard-Specifications: 'Requirements for heavy duty load-bearing boards for use in dry conditions'.

		38mm Strebord 'C' P6
Minimum Bending Strength	BS EN 312-6	14 N/mm²
Minimum Modulus of Elasticity in Bending	BS EN 312-6	2200 N/mm²
Minimum Cross Tensile Strength	BS EN 312-6	0.3 N/mm²
Moisture Content ex-Factory		6-9 %
Thickness Tolerance	BS EN 324-1	±0.3 mm
Length/Width Tolerance	BS EN 324-1	±5.0 mm
Squareness	BS EN 324-2	≤2.0 mm/m
Approximate Weight		24 kg/m²

The values of Bending and Tensile Strength and Elasticity given above are the lower 5% percentile values as specified in BS EN 312:2010 and calculated in accordance with BS EN 326-1:1994 and should not be used in design calculations without appropriate modification factors.
If in any doubt please contact Falcon Panel Products.

Installing Strebord

Strebord panels are usually fixed directly and simply to the supporting structure, with long edges running perpendicular to the supporting beams. Ensure the longer profile of the tongue is uppermost and that the boards are laid in a traditional staggered, brick-bond pattern with all the short edges supported. A minimum 10mm expansion gap is normally recommended between the deck edge and any wall, and for larger areas regular expansion gaps within the deck are also advisable.

Overlays, carpets, vinyl etc.

In line with codes of practice, BS 8203 and BS 5325 state that for all overlays the sub floor must be rigid and flat. When thin or shiny floor surface materials are laid over Strebord, it is possible for the joints of the Strebord to show through particularly after trafficking. It is advisable to have an additional layer of material (i.e. plywood) between the Strebord and the top surface to sufficiently absorb any potential telegraphing.

For further information call
01932 256580
or visit **www.falconpp.co.uk**

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Structural performance

Strebord industrial flooring panels are manufactured to performance levels at or above the limits specified for their appropriate type in BS EN 312-6:2010 and have many years record of safe and efficient use. 1000's of production quality control tests and 100's of tests specific to industrial flooring usage support the technical data given in this publication.
Extended independent laboratory tests have also been conducted in support of this information sheet.

Recommended uniformly distributed design loads kN/m²							
Span not exceeding mm	**407**	**488**	**525**	**610**	**700**	**814**	**1000**
38mm Strebord 'C' P6	20.4	16.9	15.7	13.5	11.1	6.2	2.8

The recommended design point load tables show the 'Basic load capacity' of the specified loading configuration. This includes allowances for loading conditions (e.g. long-duration: dead + permanent imposed), and are deflection limited to span/100 up to 500mm then 5mm for spans greater than 500mm.

For medium term (temporary imposed loads) loads may be increased by 70% (i.e. multiply by 1.7).
Basic load capacity value should be used in design calculations following the recommendations of BS 5268: Parts 2 to 7, using permissible stress design methods.

Recommended design point loads kN Service Class 1 (Dry conditions) Strebord 'C' P6						
	Span not exceeding mm					
Plate size mm	**407**	**488**	**525**	**610**	**700**	**814**
50 x 50	4.6	4.3	4.2	4.1	3.8	3.1
75 x 75	5.7	5.2	5.1	4.7	4.2	3.4
100 x 100	7.0	6.3	6.0	5.5	4.6	3.6
150 x 150	10.6	9.1	8.5	7.5	5.7	4.3

Technical notes on the design of Strebord floors

Strebord P6 38mm floors can accommodate many of today's hand pallet trucks, in general 1 ton up to 700mm centres and 1.5 ton up to 407 centres where no more than 50% of the AUW is on one wheel or bogie. Care should be taken with pallet truck or similar loads, where the wheel loads generated consider height/width of any pallets and any dynamic effects of a moving load or load off-centre. The supporting structure should be stiff and stable and not deflect under rolling loads which may result in excess stress on the Strebord deck.

It is essential to provide sound locations for handrails and this is usually achieved by fixing the handrail base through the primary or secondary support beams. Where necessary, handrail connections direct to the Strebord flooring can be achieved by appropriate structural design of the handrail base and associated washer plates.

Where projection of the floor is required to follow a wall profile for instance, this projection should be limited to 25% of the span of the support beams, measured from the centre line of the nearest beam. It is good practice to 'box' or 'header' all perimeter edges to avoid excessive edge deflection.

Service Class 1 is characterised by a moisture content in the materials corresponding to a temperature of 20°C and the relative humidity of the surrounding air only exceeding 65% for a few weeks per year.

Whilst every care has been taken to ensure that the information in this leaflet is correct and up to date, it is not intended to form any part of a contract or give rise to collateral liability, which is hereby specifically excluded. Falcon Panel Products Ltd reserve the right to amend the range of products and services without notice. It is intended only as a guide and designers and specifiers should themselves be satisfied of Strebords suitability for their design or structure.

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