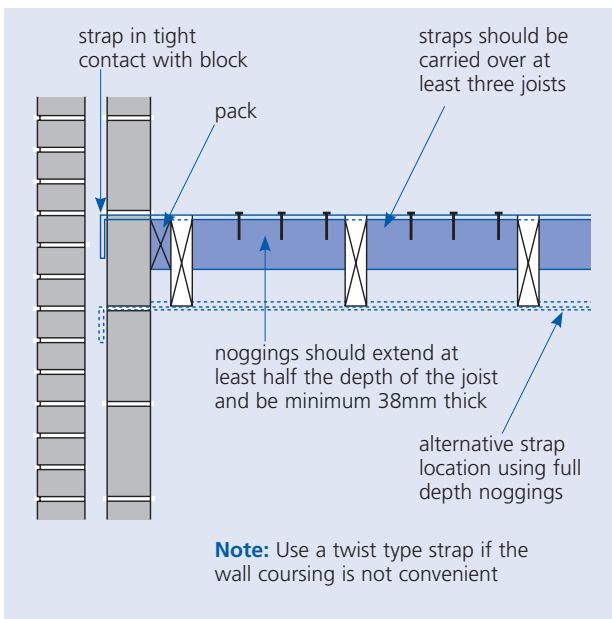


fixing of floor decking including nogging detailed



Lateral restraint strap detail at floor or ceiling joist level

Joist span	Rows of strutting
Up to 2.5m	None
2.5m to 4.5m	1 (located at mid-span)
Over 4.5m	2 (located at third points)

Notes:

Solid strutting should be used instead of herringbone strutting where the distance between joists is greater than three times the depth of the joists. In all other instances the use of herringbone strutting is recommended to reduce the risk of creaking floors due to shrinkage.

Timber for herringbone strutting should be at least 38 x 38mm.

Solid strutting should be at least 38mm thick and at least three quarters of the joist depth.

Strutting should be blocked solidly to perimeter walls.

Strutting or blocking should not block the ventilation space in cold deck flat roofs.

Strutting to joist

T & G softwood boarding for flooring

Finished board thickness (mm)	Maximum span (mm) centre to centre
15	up to 450
18	450 – 600

Note:

Softwood floor boarding should comply with BS 1297 and have a moisture content of 16 - 20% at the time of laying. Boards should be double nailed or secret nailed to each joist. Use nails 2.5 times the thickness of the board and punch well below board surface.

Flooring grade chipboard and oriented strand board

thickness (mm) chipboard	thickness (mm) OSB	Maximum span (mm) centre to centre
18 & 19mm	15mm	450
22mm	18 & 19mm	600

Note:

Softwood floor boarding should comply with BS 1297 and Chipboard flooring should be moisture resistant flooring grade type P5 or P7 to BS EN 312.

Chipboard may be square edged or tongued and grooved. Square edged boards should have all edges supported and are normally laid parallel to the joists and short ends supported on noggings. Tongued and grooved chipboard is normally laid across the joists with short ends occurring on joists.

Oriented Strand Board (OSB) should be type 3 or 4 to BS EN 300. OSB should be laid with its major axis at right angles to the supporting joists. (The major axis is indicated by a series of arrows on the face of the board).

Screw or nail chipboard and OSB at 200mm to 300mm centres along the edges and elsewhere along the joist.

Nails should be annular ringed shank (improved) of length 2.5 times the thickness of the board. Use 10 gauge nails positioned at least 9mm from the edge of the panel.

A minimum 10mm expansion gap should be provided where chipboard and OSB flooring abuts a wall.

Glueing of tongue and grooved panels is recommended to reduce squeaking. Glueing is essential where panels are over insulation as a floating floor.

Zurich Insurance Building Guarantee

Plywood for flooring		
	Recommended thickness (mm)	Max span, multi-support (mm)
American Plywood		
	15-16	Up to 450
	18-19	Up to 600
Canadian Plywood		
	15-16 (Douglas Fir)	450 - 600
	15-16 (Softwood)	450
	18-19 (Softwood)	600
Swedish Plywood		
	16 (Softwood)	450 - 600
Finnish Plywoods - sanded		
	15-16	450
	18-19	600
<p>Notes:</p> <p>Thickness and spans are recommended and not minimum. Recommendations for specific plywood grades issued by the American Plywood Association, Council of Forest Industries or Finnish Plywood International may allow greater spans. In all cases, fixing and other recommendations of these associations should be followed.</p> <p>Plywood may be square edged or tongued and grooved. Square edged boards and cut edges should be supported on all edges. Boards are normally laid so that the face grain is at right angles to the joists. If narrow sheets of plywood are used which span only between one pair of joists, the allowable span may be less than that given for multi-support. The recommendations of the above associations should be followed.</p> <p>Nail or screw the ply panels at 150mm centres along the edges and at 300mm elsewhere along the joist. Nails should be 10 gauge annular ringed shank (improved) nails 2.5 x decking thickness long positioned at least 10mm from the panel edge.</p>		

Zurich Building Guarantee

Zurich House, 2 Gladiators Way, Farnborough, Hampshire, GU14 6GB.

Telephone 01252 377474 Fax 01252 372989 Email building.guarantee@uk.zurich.com www.zurich.co.uk/buildingguarantee

Zurich Building Guarantee is a trading name of Zurich Insurance plc. A public limited company incorporated in Ireland. Registration No. 13460.

Registered Office: Zurich House, Ballsbridge Park, Dublin 4, Ireland. UK Branch registered in England and Wales Registration No. BR7985.

Authorised by the Irish Financial Regulator and subject to limited regulation by the Financial Services Authority. Details about the extent of our regulation by the Financial Services Authority are available from us on request. FSA registration number 203093. These details can be checked on the FSA's register by visiting their website www.fsa.gov.uk/register or by contacting them on 0845 606 1234.

Communications may be monitored or recorded to improve our service and for security and regulatory purposes.

© Copyright – Zurich Insurance plc 2009. All rights reserved. Reproduction, adaptation or translation without prior written permission is prohibited except as allowed under copyright laws.