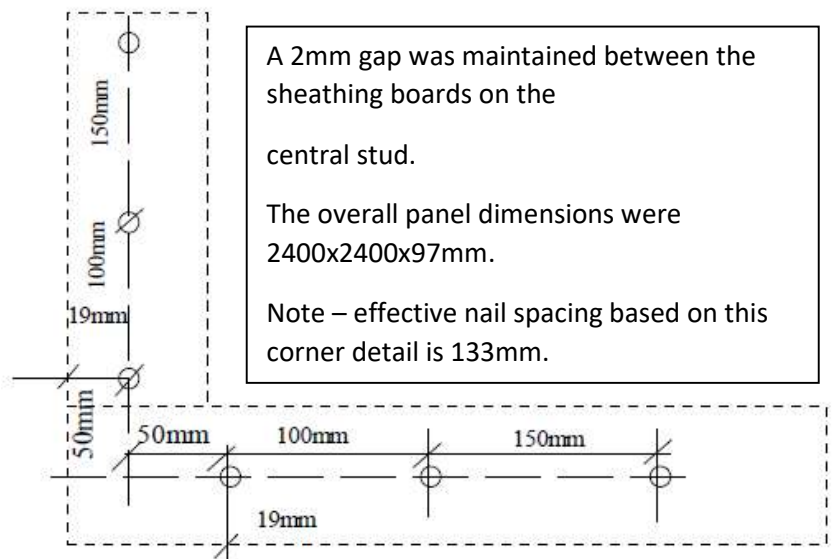


RACKING RESISTANCE SUBSTANTIATION SHEET ISO: 5221

SYSTEM: RCM 9mm YWall.
Test Reference MA11027
Test Laboratory: Milner
Test Standard: BS 5268 -6.1-2007 & BS EN 594-2011
Original Test Date: 16/12/2011

Tested panel background

- 6 timber frame panels with 9mm RCM Y-Wall sheathing were tested to determine their racking strength and stiffness to BS EN 594 – 2011.
- 3 panels were tested with no vertical load applied, and 3 with a 5kN per stud vertical load applied.
- Each panel comprised of 5no. 38x89x2324mm C16 solid timber studs fixed at 600mm centres to 38x89x2400mm C16 solid timber top and bottom rails using 2no. 3.1x90mm smooth shank gun nails, top and bottom, at each stud location.
- The panels were sheathed on one face with 2no. 1200x2400x9mm RCM Ywall boards using 2.9x50mm smooth shanks gun nails at 150mm centres at the sheathing perimeter, and 300mm centres at the intermediate studs. The setting out of the nailing was such that the corner nails were set back in from the edges by 50mm.
- The stud fixings were at 19mm edge distance on the rails. The sheathing fixings were at 19mm edge distance at the leading stud, trailing stud and rails, and at 10mm edge distance on the central stud.
- At the corners of each sheathing board the first vertical and horizontal fixings were located at a distance of 50mm from the corner edge of the board.



TEST RESULTS:

	<i>test determined Rb from BS 5268 – 6.1 factors</i>	<i>BS 5268 value adjusted for nail dia</i>	<i>Category 1 to BS 5268 -6.1</i>	<i>See notes</i>
	<i>kN/m</i>	<i>kN/m</i>	<i>kN/m</i>	
Unloaded	3.097	2.83	1.68	PASS
Loaded	2.438	2.23	1.68	PASS

Note – It is likely that if 12 mm or greater board was used it would pass the requirements for BS 5268-6.1. Tests are needed to comply with the standard.

CONCLUSION:

The test results show that the RCM Ywall can be used in BS5268 part 6.1/ 6.2 as a category 1 board.



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