CEMBRIT

Racking Strength of Cembrit Products (EN 594, EN 1380 and EN 1995-1-1)

Product	Fastener	Fixing distances At edges/center (mm)	Tested values (EN 594) Racking Strength per 1200x2400mm board			Calculated values with safety margins based on EN 1995-1-1 and RIL 205-1-2017	
			Average kN	Lowest observed kN	Std. dev.	Racking strength kN per board	Coefficient of rigidity N/mm
Cembrit Windstopper Basic 9 mm	Verpa Senco B.V. HJ17ASAVR	200/300 Not fixed from short edges	3.74	3.3	0.39	2.66	253
	Kyocera Unimerco Fastening TJEP ZE25/50 No. 835450	200/300 Not fixed from short edges				2.65	85
Cembrit Windstopper Extreme 4.5 mm	Verpa Senco B.V. HJ17ASAVR	200/300 Not fixed from short edges	3.32	3.18	0.18	2.02	299
Cembrit Windstopper Extreme 9 mm	Kyocera Unimerco Fastening TJEP ZE25/50 No. 835450	100/150 Not fixed from short edges	6.33	6.11	0.26	5.26	238
	Verpa Senco B.V. HJ17ASAVR	100/150 Not fixed from short edges				5.07	238
	Kyocera Unimerco Fastening TJEP ZE25/50 No. 835450	200/300 Not fixed from short edges				2.86	127
	Verpa Senco B.V. HJ17ASAVR	200/300 Not fixed from short edges				2.76	127

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Racking Strength of Cembrit Products (EN 594, EN 1380 and EN 1995-1-1)

Product	Fastener	Fixing distances At edges/center (mm)	Tested values (EN 594) Racking Strength per 1200x2400mm board			Calculated values with safety margins based on EN 1995-1-1 and RIL 205-1-2017	
			Average kN	Lowest observed kN	Std. dev.	Racking strength kN per board	Coefficient of rigidity N/mm
Cembrit Multi Force 9 mm	Ferrometal / Fix Master 951842 35 007 1000	200/300	7.67	7.39	0.28	6.55	469
	RED HORSE CSH-R 3.9-4.8X38#1 PHD	200/300					
Cembrit Multi Force 12 mm	Ferrometal / Fix Master 951842 35 007 1000	200/300	8.28	7.9	0.47	6.75	379
	RED HORSE CSH-R 3.9-4.8X38#1 PHD	200/300				6.72	379

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Racking Strength of Cembrit Products (EN 594, EN 1380 and EN 1995-1-1)

Racking strength was tested with board size 1200x2400 mm. For other sizes, the below table can be used to calculate the racking strength.

Height of wall panel [mm]	2400	2500	2600	2700	2800	2900	3000	3100
Factor ci = 2b/h	1.00	0.96	0.92	0.89	0.86	0.83	0.80	0.77