

PANEL SPECIFICATIONS

Panel Components	Straw, Kraft Paper (recycled paper), Resin (to adhere exterior Kraft paper only) - non-toxic glue, Steel Frames & Studs (recycled steel)
Thickness	2-1/4" (5.72 cm) thickness
Length	8' (2.4 m) standard panel length. Other lengths cut to order.
Width	32" (0.81 m) standard panel width. Wider widths made to order.
Weight	3.5 lbs. (1.59 kg) per square foot for 2-1/4" (5.72 cm) thick panel or 18.67 lbs. (8.47 kg) per cubic foot or 75 lbs. (34 kg) for standard panel.
Construction	Core straw fibers processed at up to 400 degrees F (204 degrees C). Heavy recycled paper coverings bonded to both sides. Ends and edges sealed. A variety of facing materials, such as stucco, brick, vinyl siding, stone, etc. can be applied to the surface. Panels can also be painted or covered with wallpaper.
Fire Resistance	Meets requirements for non-combustible materials as tested by Underwriters' Laboratories in accordance with ASTM E84-61 and conforming to Appendix A of CSA B 54.1-1960. A 1-1/2 hours fire rating was obtained with two panels bonded together. The panels do not harbor enough oxygen to support combustion. The firecrest-flames produce very slow charring. The carbon formed by charring acts in turn as an additional fire barrier.
Expansion and Contraction	Tests show the average movement over a relative humidity range of 40% to 90% is 0.22 of 1% in length and 0.12 of 1% in the width of the panel or about 1 to 1,000.
Thermal Insulation	Low thermal transmission; tested under specification ASTM C 177-45 with an R value of 9.08 per 4 inches (10.16 cm).
Sound Reduction	Sound transmission loss: 31.1 decibels total loss at 512 Hz for 2-1/4" (5.72 cm) thickness.
Acoustics	Sound absorption of core is approximately 40%.
Deflection	Under ASTM Standard E-72-51-T, sections 54, 55, 56: <ul style="list-style-type: none"> Flat Deflection: when supported on longitudinal members spaced at 24" on center reaches 1/360 of span at 260 lbs. (117.93 kg) per square foot distributed live load. Sloped Deflection: can be supported at 48" on center when pitch is greater than 4 in 12 or when the product is used in vertical position.
Racking	Test performed on the product nailed according to specifications showed its racking strength equal to that of 1 x 6 diagonal sheathing.
Compression	Test conducted under ASTM tentative standard E 71-51 T section 54, 55 and 56. Compression by 1" steel button at 281.6 lbs. of pressure was 0.078" for the 2-1/2" thickness.
Nail Holding Power	Testing using 1-1/2" ring shank aluminum nails indicate an average 45 lbs withdrawal pressure, comparable to 1-1/2" roofing nails in wood construction.
Moisture Resistance*	Due to the dry manufacturing process, the product leaves the factory with low moisture content. Absorption when completely immersed in water for two hours was 5.63% to 6.7%. To test the water permeability of its facings, a standpipe was placed on the Kraft surface and sealed at the edges to prevent water leakage. A head of 12" of water was allowed to stand on the surface for 24 hours. Some moistening of the Kraft surface occurred but NO passage of moisture through the surface was apparent. *This data is a result of official testing on standard panel.
Acceptance	Federal Housing Administration, U.S.; International Conference of Building Officials, U.S.; and Central Mortgage and Housing Corp., Canada.