

ABSTRACT

An object of the present invention is to provide a gypsum-based load-bearing board for wood structural load-bearing walls which is capable of increasing the co-efficient of effective wall length without additionally using reinforcement materials or stiffening materials, and without increasing the specific gravity and/or the thickness of the gypsum-based board. The gypsum-based load-bearing board (10) for wood structural load-bearing walls includes a main member or a core member formed from a board-shaped hardened gypsum containing an inorganic fiber and an organic-based strength enhancer that exert a lateral nail resistance of 500 N or more, and a paper covering at least front and back sides of the main member or the core member to constitute the load-bearing board. The load-bearing board has a surface density of 6.5 kg/m² to 8.9 kg/m², exhibits an ultimate displacement (δ_u) of the load-bearing wall measured by an in-plane shear test of greater than 20×10^{-3} rad (δ_u), and exerts an ultimate strength (correction value) (P_u') of greater than 7.6 kN. According to the wooden structural load-bearing walls using the load-bearing board can obtain short-term reference shear strength (P_0) greater than the wooden structural load-bearing walls using similar load-bearing board having a surface density of greater than 9.0 kg/m².

FIG. 1