

ABSTRACT

To increase a coefficient of effective wall length of a wooden structure wall without additionally attaching a reinforcement material or a stiffener and without increasing a specific gravity, a thickness, or both of a gypsum-based board. A gypsum-based load-bearing bearing board 10 for a wooden load-bearing wall includes a main material or a core material formed of a board-shaped hardened gypsum, and a paper member covering at least a front surface and a back surface of the main material or the core material, where inorganic fibers and an organic strength improver are added to the hardened gypsum so that a lateral nail resistance is 500 N or greater. The bearing board has an area density in a range of from 6.5 to 8.9 kg/m² and a compressive strength of 6.5 N/mm² or greater, and achieves an ultimate displacement (δ_u) that is greater than 20×10^{-3} rad and an initial stiffness (K) of 2.0 kN/10⁻³ rad or greater in an in-plane shear test of the bearing wall, so that a ductility factor (μ) is increased not only by increase in the ultimate displacement but also by reduction in a yield point displacement (δ_v), thereby effectively or efficiently increasing a coefficient of effective wall length and short-term reference shear strength (P0) of the wooden load-bearing wall.

FIG. 2