CLAIMS

[Claim 1]

A gypsum hardened body that is made by hardening a gypsum slurry, which is obtained by mixing calcined gypsum, calcium hydrogen phosphate dihydrate, water, and foam, wherein a specific gravity of the gypsum hardened body is greater than or equal to 0.3 and less than or equal to 0.8.

[Claim 2]

The gypsum hardened body according to claim 1 that is made by hardening a gypsum slurry, which is obtained by mixing a gypsum composition corresponding to a mixture of the calcined gypsum and the calcium hydrogen phosphate dihydrate with the water and the foam.

[Claim 3]

The gypsum hardened body according to claim 1 or 2, wherein the gypsum slurry includes the calcium hydrogen phosphate dihydrate at an amount greater than or equal to 0.01 part by mass and less than or equal to 5 parts by mass with respect to 100 parts by mass of the calcined gypsum.

[Claim 4]

The gypsum hardened body according to claim 1 or 2, wherein the gypsum slurry includes the calcium hydrogen phosphate dihydrate at an amount greater than or equal to 0.05 parts by mass and less than or equal to 1 part by mass with respect to 100 parts by mass of the calcined gypsum.

[Claim 5]

The gypsum hardened body according to any one of claims 1-4, wherein the specific gravity of the gypsum hardened body is greater than or equal to 0.3 and less than or equal to 0.5.

[Claim 6]

The gypsum hardened body according to any one of claims 1-5, wherein the gypsum slurry further includes an organic carboxylic acid and/or an organic carboxylic acid salt.

[Claim 7]

The gypsum hardened body according to claim 6, wherein the organic carboxylic acid and/or the organic carboxylic acid salt includes at least one organic carboxylic acid selected from a group consisting of formic acid, acetic acid, propionic acid, butyric acid, valeric acid, acrylic acid, methacrylic acid, propiolic acid, oleic acid, maleic acid, fumaric acid, oxalic acid, malonic acid, succinic acid, glutaric acid, adipic acid, tartaric acid, citric acid, malic acid, gluconic acid, and lactic acid; and/or at least one salt of at least one organic carboxylic acid selected from the group.

[Claim 8]

The gypsum hardened body according to claim 6 or 7, wherein the gypsum slurry includes the organic carboxylic acid and/or the organic carboxylic acid salt at an amount greater than or equal to 0.005 parts by mass and less than or equal to 0.2 parts by mass with respect to 100 parts by mass of the calcined gypsum.

[Claim 9]

The gypsum hardened body according to any one of claims 1-8, wherein the calcined gypsum includes β-calcined gypsum.

[Claim 10]

A gypsum panel including the gypsum hardened body according to any one of claims 1-9 as a core material.

[Claim 11]

The gypsum panel according to claim 10, wherein the gypsum panel is a gypsum board.

[Claim 12]

The gypsum panel according to claim 10 or 11, wherein an amount of deflection of the gypsum panel is less than or equal to 100 mm.

[Claim 13]

A method for manufacturing a gypsum hardened body, comprising:

a gypsum slurry manufacturing step for manufacturing a gypsum slurry by mixing calcined gypsum, calcium hydrogen phosphate dihydrate, water, and foam;

a shaping step for shaping the gypsum slurry into a shaped body; and

a hardening step for hardening the shaped body obtained in the shaping step to obtain the gypsum hardened body;

wherein a specific gravity of the obtained gypsum hardened body is greater than or equal to 0.3 and less than or equal to 0.8.

[Claim 14]

The method for manufacturing a gypsum hardened body according to claim 13, wherein

the gypsum slurry manufacturing step includes

a step for manufacturing a gypsum composition corresponding to a mixture by mixing the calcined gypsum and the calcium hydrogen phosphate dehydrate; and

a step of mixing the gypsum composition, the water, and the foam.

[Claim 15]

A method for manufacturing a gypsum board, comprising:

a gypsum slurry manufacturing step for manufacturing a gypsum slurry by mixing calcined gypsum, calcium hydrogen phosphate dihydrate, water, and foam;

a shaping step for arranging the gypsum slurry between base paper and shaping the gypsum slurry into a shaped body; and

a hardening step for hardening the shaped body obtained in the shaping step to obtain the gypsum hardened body;

wherein a specific gravity of the obtained gypsum hardened body is greater than or equal to 0.3 and less than or equal to 0.8.

[Claim 16]

The method for manufacturing a gypsum board according to claim 15, wherein

the gypsum slurry manufacturing step includes

a step for manufacturing a gypsum composition corresponding to a mixture by mixing the calcined gypsum and the calcium hydrogen phosphate dehydrate; and

a step of mixing the gypsum composition, the water, and the foam.