CLAIMS

1. A heat-insulating and sound-absorbing material comprised of an agglomerate of inorganic fibers,

wherein the agglomerate has a density of 10 to 20 kg/m^3, and the inorganic fibers of the agglomerate have a length-weighted average fiber diameter of 2.0 to 8.7 μm, and

wherein the agglomerate contains: 20 to 66% of inorganic fibers having a length-weighted average fiber diameter of less than 4.0 μm; and 13 to 58% of inorganic fibers having a length-weighted average fiber diameter of 7.0 μm or more, wherein a sum of respective percents of the inorganic fibers having a length-weighted average fiber diameter of less than 4.0 μm, inorganic fibers having a length-weighted average fiber diameter of 4.0 μm to less than 7.0 μm, and the inorganic fibers having a length-weighted average fiber diameter of 7.0 μm or more is 100%,

wherein the inorganic fibers are glass wool.

2. The heat-insulating and sound-absorbing material as recited in claim 1, wherein the agglomerate comprises a first layer and a second layer which are laminated together and is formed in a plate-like shape, wherein inorganic fibers of the first layer have a length-weighted average fiber diameter greater than that of inorganic fibers of the second layer by 0.1 to 3.0 μm.

3. The heat-insulating and sound-absorbing material as recited in claim 1, wherein the agglomerate comprises a first layer, a second layer and a third layer which are laminated together in this order and is formed in a plate-like shape, wherein inorganic fibers of the first layer and the third layer have a length-weighted average fiber diameter greater than that of inorganic fibers of the second layer by 0.1 to 3.0 μm.

4. The heat-insulating and sound-absorbing material as recited in any one of claims 1 to 3, wherein the agglomerate comprises a plurality of layers which are laminated together and is formed in a plate-like shape, wherein inorganic fibers of an outermost one of the

plurality of layers have a length-weighted average fiber diameter of 4.3 to 7.0 μm.

5. The heat-insulating and sound-absorbing material as recited in any one of claims 1 to 4, wherein the inorganic fibers of the agglomerate have a length-weighted average fiber diameter of 3.8 to 5.3 μm.

6. The heat-insulating and sound-absorbing material as recited in any one of claims 1 to 5, wherein the agglomerate contains the inorganic fibers having a length-weighted average fiber diameter of 7.0 μm or more, in an amount of 13 to 33%.

7. The heat-insulating and sound-absorbing material as recited in any one of claims 1 to 6, wherein the agglomerate contains the inorganic fibers having a length-weighted average fiber diameter of less than 4.0 μm, in an amount of 41 to 66%.

~~8. The heat-insulating and sound-absorbing material as recited in any one of claims 1 to 7, wherein the inorganic fibers are glass wool.~~

~~9~~8. The heat-insulating and sound-absorbing material as recited in any one of claims 1 to ~~8~~7, wherein the agglomerate contains a binder for agglomerating the inorganic fibers, in an amount of 1.0 to 8.5% by weight, with respect to an overall weight of the agglomerate, the binder having a binder strength of 3.6 to 6.1 N/mm^2.

~~10~~9. The heat-insulating and sound-absorbing material as recited in claim ~~9~~8, wherein the binder includes a thermo-setting resin curable by a reaction selected from the group consisting of amidation reaction, imidization reaction, esterification reaction and transesterification reaction.

~~11~~10. A partition wall comprising a hollow wall portion, and the heat-insulating and sound-absorbing material as recited in any one of claims 1 to ~~10~~9, installed in the hollow wall portion.

~~12~~11. The partition wall as recited in claim ~~11~~10, which comprises:

a wall base comprising

a lower runner disposed on a floor structure,

an upper runner fixed to an upper story structure, and

studs built up vertically between the lower runner and the upper runner, by a single-runner and staggered-stud construction method, a single-runner and common-stud construction method, a single-runner and common-stud construction method using a staggered backing pad arrangement, a single-runner and staggered-stud construction method using a staggered backing pad arrangement, or a double-runner and parallel-stud construction method; and

surface members installed on each of transversely opposite sides of the wall base to extend from the floor structure to the upper story structure.

~~13~~12. The partition wall as recited in claim ~~12~~11, wherein the surface member is comprised of a board of a noncombustible material or quasi-noncombustible material, or of a laminate comprising the board.

~~14~~13. The partition wall as recited in claim ~~12~~ 11 or ~~13~~12, wherein the surface member is comprised of a gypsum or fiber-reinforced gypsum board, or of a laminate comprising the gypsum or fiber-reinforced gypsum board.

~~15~~14. The partition wall as recited in claim ~~13~~ 12 or ~~14~~13, wherein the surface member has a thickness of 20 mm or more.