CLAIMS

[Claim 1] A process for production of a glass fiber fabric having silica microparticles adhered thereon in which silica microparticles are attached or fused on glass filament surfaces of a glass fiber fabric to adhere the silica microparticles, comprising:

an attachment step of immersing the glass fiber fabric in which a sizing agent is attached on the glass filaments, in an aqueous dispersion of silica microparticles to attach the silica microparticles on the glass filament surfaces of the glass fiber fabric;

a fiber-opening step of providing a fiber-opening treatment to the glass fiber fabric on which the silica microparticles are attached by the attachment step; and

a heating step of heat-treating the glass fiber fabric to which the fiber-opening treatment is provided by the fiber-opening step, to fuse some or all of the silica microparticles attached by the attachment step, on the glass filament surfaces of the glass fiber fabric.

[Claim 2] The process for production of a glass fiber fabric having silica microparticles adhered thereon according to claim 1, wherein a fusion rate of the silica microparticles in the glass fiber fabric having silica microparticles adhered thereon is 60% or more.

[Claim 3] The process for production of a glass fiber fabric having silica microparticles adhered thereon according to claim 1 or 2, wherein the fiber-opening treatment

provides at least one of a fiber-opening treatment with a water jet, a fiber-opening treatment with a vibrowasher, and a fiber-opening treatment with an ultrasonic wave.

[Claim 4] The process for production of a glass fiber fabric having silica microparticles adhered thereon according to any one of claims 1 to 3, wherein a mass per unit area of the glass fiber fabric having silica microparticles adhered thereon is 110 g/m^2 or less.

[Claim 5] A glass fiber fabric having silica microparticles adhered thereon in which silica microparticles are fused on glass filament surfaces of a glass fiber fabric to adhere the silica microparticles.

[Claim 6] The glass fiber fabric having silica microparticles adhered thereon according to claim 5, wherein a mass per unit area of the glass fiber fabric having silica microparticles adhered thereon is 110 g/m^2 or less.

[Claim 7] The glass fiber fabric having silica microparticles adhered thereon according to claim 5 or 6, wherein a mass per unit area, X g/m^2, and air permeability, Y $cm^3 \cdot cm^{-2} \cdot s^{-1}$, of the glass fiber fabric having silica microparticles adhered thereon satisfy a condition of $0 < X \times (Y)^{1/2} \leq 300$.

[Claim 8] A fiber-reinforced molded resin article comprising the glass fiber fabric having silica microparticles adhered thereon according to any one of claims 5 to 7 as a reinforcing material.

CLAIMS

[Claim 1] A glass fiber fabric having silica microparticles adhered thereon in which silica microparticles are fused on glass filament surfaces of a glass fiber fabric to adhere the silica microparticles.

[Claim 2] The glass fiber fabric having silica microparticles adhered thereon according to claim 1, wherein the fusion rate of the silica microparticles is 90 % or more.

[Claim 3] The glass fiber fabric having silica microparticles adhered thereon according to claim 1 or 2, wherein 0.01 to 1 part by mass of the silan coupling agent with respect to 100 part by mass of the glass fiber yarns is attached to the glass fiber fabric having silica micropaticles.

[Claim 4] The glass fiber fabric having silica microparticles adhered thereon according to any claims 1 to 3, wherein a mass per unit area of the glass fiber fabric having silica microparticles adhered thereon is 110 g/m^2 or less.

[Claim 5] The glass fiber fabric having silica microparticles adhered thereon according to any claims 1 to 4, wherein a mass per unit area, X g/m^2, and air permeability, Y $cm^3 \cdot cm^{-2} \cdot s^{-1}$, of the glass fiber fabric having silica microparticles adhered thereon satisfy a condition of $0 < X \times (Y)^{1/2} \leq 300$.

[Claim 6] The glass fiber fabric having silica microparticles adhered thereon according to any one of claims 1 to 5, wherein the silica microparticles adhered on the glass filament surfaces of the glass fiber fabric having the size agent adhered thereon are fused to the glass filament surfaces by a heat treatment.

[Claim 7] A fiber-reinforced molded resin article comprising the glass fiber fabric having silica microparticles adhered thereon according to any one of claims 1 to 6 as a reinforcing material.