CLAIMS

[Claim 1]

A spherical alumina particle mixture wherein

in a particle size distribution measured by a wet sieving test method, 180 μm or more particles account for 0.04 wt% or less,

an α-alumina crystal content rate is 45% or more,

a specific surface area is 0.3 to 1.0 m^2/g, and

a roundness is 0.85 or more.

[Claim 2]

The spherical alumina particle mixture according to claim 1,

containing at least three types or more of particles selected from the group comprising spherical alumina particles (a) with an average particle size (D50) of 30 to 160 μm and with a roundness of 0.90 or more, spherical alumina particles (b) with a D50 of 4 to 12 μm and with a roundness of 0.90 or more, spherical alumina particles (c) with a D50 of 2 to 3 μm and with a roundness of 0.90 or more, and spherical alumina particles (d) with a D50 of 0.8 to 1.0 μm and with a roundness of 0.90 or more, containing the spherical alumina particles (a) in 50 to 80 wt%, the spherical alumina particles (b) in 10 to 30 wt%, and the spherical alumina particles (d) in 5 to 30 wt% and having a total of the spherical alumina particles (a), spherical alumina particles (b), and spherical alumina particles (d) of 90 wt% or more, and

having a specific surface area of 0.3 to 1.0 m^2/g.

[Claim 3]

The spherical alumina particle mixture according to claim 1,

containing at least three types or more of particles selected from the group comprising spherical alumina particles (a) with an average particle size (D50) of 30 to 160 μm and with a roundness of 0.90 or more, spherical alumina particles (b) with a D50 of 4 to 12 μm and with a roundness of 0.90 or more, spherical alumina particles (c) with a D50 of 2 to 3 μm and with a roundness of 0.90 or more, and spherical alumina particles (d) with a D50 of 0.8 to 1.0 μm and with a roundness of 0.90 or more,

containing the spherical alumina particles (a) in 50 to 80 wt%, the spherical alumina particles (b) in 10 to 40 wt%, and the spherical alumina particles (c) in 5 to 30 wt% and having a total of the spherical alumina particles (a), spherical alumina particles (b), and spherical alumina particles (c) of 90 wt% or more, and

having a specific surface area of 0.3 to 1.0 m^2/g.

[Claim 4]

The spherical alumina particle mixture according to claim 1,

containing at least four types or more of particles selected from the group comprising spherical alumina particles (a) with an average particle size (D50) of 30 to 160 μm and with a roundness of 0.90 or more, spherical alumina particles (b) with a D50 of 4 to 12 μm and with a roundness of 0.90 or more, spherical alumina particles (c) with a D50 of 2 to 3 μm and with a roundness of 0.90 or more, and spherical alumina particles (d) with a D50 of 0.8 to 1.0 μm and with a roundness of 0.90 or more,

containing the spherical alumina particles (a) in 50 to 70 wt%, the spherical alumina particles (b) in 10 to 30 wt%, the spherical alumina particles (c) in 10 to 30 wt%, and the spherical alumina particles (d) in 5 to 30 wt% and having a total of the spherical alumina particles (a), spherical alumina particles (b), spherical alumina particles (c), and spherical alumina particles (d) of 90 wt% or more, and

having a specific surface area of 0.3 to 1.0 m^2/g.

[Claim 5]

A resin composite composition comprising a resin containing a spherical alumina particle mixture according to any one of claims 1 to 4.

[Claim 6]

A resin composite body comprised of the resin composite composition according to claim 5 which is cured.

[Claim 7]

A method for producing spherical alumina particle mixture according to any of claims 1 to 4, which method for producing a spherical alumina particle mixture comprising mixing at least three types or more of particles selected from the group comprising spherical alumina particles (a) with an average particle size (D50) of 30 to 160 μm and with a roundness of 0.90 or more, spherical alumina particles (b) with a D50 of 4 to 12 μm and with a roundness of 0.90 or more, spherical alumina particles (c) with a D50 of 2 to 3 μm and with a roundness of 0.90 or more, and spherical alumina particles (d) with a D50 of 0.8 to 1.0 μm and with a roundness of 0.90 or more.