CLAIMS

1. A thermally conductive film adhesive composition, comprising at least:
an epoxy resin (A),
an epoxy resin curing agent (B),
a polymer component (C),
a polyhedral alumina filler (D), and
a silane coupling agent (E),
wherein the median diameter (d50) of the polyhedral alumina filler (D) as a whole is 0.1 to 6.0 μm,
wherein the polyhedral alumina filler (D) may contain a spherical alumina filler, and the content of the spherical alumina filler contained in the polyhedral alumina filler (D) is 50 mass% or less,
wherein a percentage of the polyhedral alumina filler (D) to a total content of the epoxy resin (A), the epoxy resin curing agent (B), the polymer component (C), the polyhedral alumina filler (D), and the silane coupling agent (E) is from 50 to 70 vol%, and
wherein a blending multiple of the silane coupling agent as represented by the following (Formula I) is from 1.0 to 10:

(Formula I)
Blending multiple of silane coupling agent =
Blending amount (g) of silane coupling agent (E)/Required amount (g) of silane coupling agent (E) where

(Formula II)
Required amount (g) of silane coupling agent (E) =
[Blending amount (g) of polyhedral alumina filler (D) × specific surface area (m^2/g) of polyhedral alumina filler (D)]/minimum coating area (m^2/g) of silane coupling agent (E).

2. The thermally conductive film adhesive composition according to claim 1,

wherein when a thermally conductive film adhesive obtained from the thermally conductive film adhesive composition is heated at a temperature elevation rate of 5°C/min from 25°C, melt viscosity at 120°C reaches a range of 250 to 10000 Pa·s, and

wherein the thermally conductive film adhesive has a thermal conductivity of 1.0 W/m·K or more.

3. A thermally conductive film adhesive which is obtained from the thermally conductive film adhesive composition according to claim 1 or claim 2.

4. The thermally conductive film adhesive according to claim 3, which has a thickness in a range of 1 to 80 μm.

5. A method of producing a semiconductor package, comprising:

a first step of providing an adhesive layer by thermocompression bonding the thermally conductive film adhesive according to claim 3 to a back surface of a semiconductor wafer in which a semiconductor circuit is formed on a surface, and providing a dicing film with the adhesive layer interposed between the back surface and the dicing film;

a second step of integrally dicing the semiconductor wafer and the adhesive layer to obtain a semiconductor chip with an adhesive layer, the semiconductor chip with an adhesive layer including the semiconductor chip and a piece of the film adhesive on the dicing film;

a third step of removing the dicing film from the semiconductor chip with an adhesive layer and thermocompression bonding the semiconductor chip with an adhesive layer and a circuit board via the adhesive layer; and

a fourth step of thermally curing the adhesive layer.

6. The method of producing a semiconductor package according to claim 5, wherein the thermally conductive film adhesive has a thickness in a range of 1 to 80 μm.