CLAIMS

1. A film-shaped adhesive for adhering a semiconductor element to a support member for mounting the semiconductor element,

the film-shaped adhesive comprising a heat-curable resin, a curing agent, an acrylic rubber, and an inorganic filler,

wherein the content of the acrylic rubber is 60 to 85 parts by mass with respect to 100 parts by mass of the total mass of the heat-curable resin, the curing agent, the acrylic rubber, and the inorganic filler,

the average particle size of the inorganic filler is 0.03 to 1 μm,

the content of the inorganic filler is 0.5 to 10 parts by mass with respect to 100 parts by mass of the total mass of the heat-curable resin, the curing agent, the acrylic rubber, and the inorganic filler, and

the thickness of the film-shaped adhesive is 15 μm or less.

2. An adhesive sheet comprising a base material; and the film-shaped adhesive according to claim 1 provided on one surface of the base material.

3. The adhesive sheet according to claim 2, wherein the base material is a dicing tape.

4. A semiconductor device comprising a semiconductor element; a support member for mounting the semiconductor element; and an adhesive member provided between the semiconductor element and the support member and adhering the semiconductor element to the support member,

the adhesive member being a cured product of the film-shaped adhesive according to claim 1.

5. The semiconductor device according to claim 4, wherein the support member includes a member composed of copper.

6. A method for producing a semiconductor device, the method comprising adhering a semiconductor element to a support member using the film-shaped adhesive according to claim 1.

7. A method for producing a semiconductor device, the method comprising:

sticking the film-shaped adhesive of the adhesive sheet according to claim 2 or 3 to a semiconductor wafer;

cutting the semiconductor wafer having the film-shaped adhesive stuck thereto to produce a plurality of individually divided film-shaped adhesive-attached semiconductor elements; and

adhering each of the film-shaped adhesive-attached semiconductor elements to a support member.

8. The method for producing a semiconductor device according to claim 7, further comprising heating the film-shaped adhesive-attached semiconductor element adhered to the support member, using a reflow furnace.