CLAIMS

1. A conductive adhesive comprising:

conductive particles including a metal;

a thermosetting resin; and

a flux activator;

wherein a melting point of the conductive particles is 220°C or lower, and

the conductive adhesive is used for adhering a wiring member to an electrode connected to a solar battery while electrically connecting the wiring member to the electrode.

2. The conductive adhesive according to claim 1, wherein the conductive particles include at least one kind of metal selected from the group consisting of bismuth, indium, tin and zinc.

3. The conductive adhesive according to claim 1 or 2, wherein the thermosetting resin includes at least one of an epoxy resin and a (meth)acrylic resin.

4. The conductive adhesive according to any one of claims 1 to 3, wherein the flux activator is a compound having a hydroxyl group and a carboxyl group.

5. A solar battery comprising:

a solar battery cell;

electrodes connected to a light-receiving surface and a rear

surface of the solar battery cell, respectively;

a first wiring member placed opposite to the electrode of the light-receiving surface side and a second wiring member placed opposite to the electrode of the rear surface side; and

the conductive adhesive according to any one of claims 1 to 4, interposed between the electrode of the light-receiving surface side and the first wiring member and between the electrode of the rear surface side and the second wiring member;

wherein the first wiring member and the second wiring member each are electrically connected and adhered to the electrode.

6. A method for manufacturing a solar battery, comprising the steps of:

applying the conductive adhesive according to any one of claims 1 to 4 to electrodes connected a light-receiving surface and a rear surface of a solar battery cell, respectively;

placing a first wiring member opposite to the electrode of the light-receiving surface side and placing a second wiring member opposite to the electrode of the rear surface side, with the applied conductive adhesive interposed therebetween; and

placing a sealing resin on a side, opposite to the solar battery cell, of each of the first wiring member and the second wiring member, placing a glass substrate on the sealing resin of the light-receiving surface side, placing a protective film on the sealing resin of the rear surface side, and heating the whole in the obtained state, thereby sealing the solar battery cell while electrically connecting and adhering the first

wiring member and the second wiring member to the respective electrodes.

7. A solar battery module comprising:

a plurality of solar battery cells;

electrodes connected to a light-receiving surface and a rear surface of each of the plurality of solar battery cells, respectively;

a first wiring member placed opposite to the electrode of the light-receiving surface side and a second wiring member placed opposite to the electrode of the rear surface side; and

the conductive adhesive according to any one of claims 1 to 4, interposed between the electrode of the light-receiving surface side and the first wiring member and between the electrode of the rear surface side and the second wiring member;

wherein the first wiring member and the second wiring member each are electrically connected and adhered to the electrode, and

the wiring members are connected to each other so that the plurality of solar battery cells are electrically connected.

8. A conductive adhesive comprising:

conductive particles including a metal;

a thermosetting resin;

a flux activator; and

a rheology control agent;

wherein the conductive adhesive has a viscosity of 100 to 500Pa·s, as measured using a rotation viscometer under conditions of a

measurement temperature of 25°C and a rotation rate of 0.5 rpm, and

the conductive adhesive is used for electrically connecting and adhering wiring members to an electrode connected to a solar battery cell.

9. A conductive adhesive comprising:

conductive particles including a metal;

a thermosetting resin;

a flux activator; and

inorganic fine particles or organic fine particles;

wherein the conductive adhesive has a viscosity of 100 to 500Pa·s, as measured using a rotation viscometer under conditions of a measurement temperature of 25°C and a rotation rate of 0.5 rpm, and

the conductive adhesive is used for electrically connecting and adhering wiring members to an electrode connected to a solar battery cell.

10. The conductive adhesive according to claim 8 or 9, wherein a ratio of viscosity measured under conditions of a measurement temperature of 25°C and a rotation rate of 0.5 rpm using a rotation viscometer after being left to stand at 25°C for 24 hours, to viscosity as measured under conditions of a measurement temperature of 25°C and a rotation rate of 0.5 rpm using a rotation viscometer before being left to stand is 0.7 to 1.5.

11. The conductive adhesive according to any one of claims 8 to 10,

wherein a melting point of the conductive particles is 220°C or lower.

12. The conductive adhesive according to any one of claims 8 to 11, wherein the conductive particles include at least one kind of metal selected from the group consisting of bismuth, indium, tin and zinc.

13. The conductive adhesive according to any one of claims 8 to 12, wherein the thermosetting resin includes at least one of an epoxy resin and a (meth)acrylic resin.

14. The conductive adhesive according to any one of claims 8 to 13, wherein the flux activator is a compound having a hydroxyl group and a carboxyl group.

15. A solar battery comprising:

a solar battery cell;

electrodes connected to a light-receiving surface and a rear surface of the solar battery cell, respectively;

a first wiring member placed opposite to the electrode of the light-receiving surface side and a second wiring member placed opposite to the electrode of the rear surface side; and

the conductive adhesive according to any one of claims 8 to 14, interposed between the electrode of the light-receiving surface side and the first wiring member and between the electrode of the rear surface side and the second wiring member;

wherein the first wiring member and the second wiring member

each are electrically connected and adhered to the electrode.

16. A method for manufacturing a solar battery, comprising the steps of:

applying the conductive adhesive according to any one of claims 8 to 14 to electrodes connected a light-receiving surface and a rear surface of a solar battery cell, respectively;

placing a first wiring member opposite to the electrode of the light-receiving surface side and placing a second wiring member opposite to the electrode of the rear surface side, with the applied conductive adhesive interposed therebetween; and

placing a sealing resin on a side, opposite to the solar battery cell, of each of the first wiring member and the second wiring member, placing a glass substrate on the sealing resin of the light-receiving surface side, placing a protective film on the sealing resin of the rear surface side, and heating the whole in the obtained state, thereby sealing the solar battery cell while electrically connecting and adhering the first wiring member and the second wiring member to the respective electrodes.

17. A solar battery module comprising:

a plurality of solar battery cells;

electrodes connected to a light-receiving surface and a rear surface of each of the plurality of solar battery cells, respectively;

a first wiring member placed opposite to the electrode of the light-receiving surface side and a second wiring member placed

opposite to the electrode of the rear surface side; and

the conductive adhesive according to any one of claims 8 to 14, interposed between the electrode of the light-receiving surface side and the first wiring member and between the electrode of the rear surface side and the second wiring member;

wherein the first wiring member and the second wiring member each are electrically connected and adhered to the electrode, and

the wiring members are connected to each other so that the plurality of solar battery cells are electrically connected.

CLAIMS

1. A conductive adhesive comprising:

conductive particles including a metal;

a thermosetting resin;

a flux activator; and

a rheology control agent;

wherein the conductive adhesive has a viscosity of 100 to 500Pa·s, as measured using a rotation viscometer under conditions of a measurement temperature of 25°C and a rotation rate of 0.5 rpm,

wherein a ratio of viscosity measured under conditions of a measurement temperature of 25°C and a rotation rate of 0.5 rpm using a rotation viscometer after being left to stand at 25°C for 24 hours, to viscosity as measured under conditions of a measurement temperature of 25°C and a rotation rate of 0.5 rpm using a rotation viscometer before being left to stand is 0.7 to 1.5, and

the conductive adhesive is used for electrically connecting and adhering wiring members to an electrode connected to a solar battery cell.

2. The conductive adhesive according to claim 1, wherein a melting point of the conductive particles is 220°C or lower.

3. The conductive adhesive according to claim 1, wherein the conductive particles include at least one kind of metal selected from the group consisting of bismuth, indium, tin and zinc.

4. The conductive adhesive according to claim 1, wherein the thermosetting resin includes at least one of an epoxy resin and a (meth)acrylic resin.

5. The conductive adhesive according to claim 1, wherein the flux activator is a compound having a hydroxyl group and a carboxyl group.

6. A solar battery comprising:

a solar battery cell;

electrodes connected to a light-receiving surface and a rear surface of the solar battery cell, respectively;

a first wiring member placed opposite to the electrode of the light-receiving surface side and a second wiring member placed opposite to the electrode of the rear surface side; and

the conductive adhesive according to claim 1, interposed between the electrode of the light-receiving surface side and the first wiring member and between the electrode of the rear surface side and the second wiring member;

wherein the first wiring member and the second wiring member each are electrically connected and adhered to the electrode.

7. A method for manufacturing a solar battery, comprising the steps of:

applying the conductive adhesive according to claim 1 to electrodes connected a light-receiving surface and a rear surface of a solar battery cell, respectively;

placing a first wiring member opposite to the electrode of the light-receiving surface side and placing a second wiring member opposite to the electrode of the rear surface side, with the applied conductive adhesive interposed therebetween; and

placing a sealing resin on a side, opposite to the solar battery cell, of each of the first wiring member and the second wiring member, placing a glass substrate on the sealing resin of the light-receiving surface side, placing a protective film on the sealing resin of the rear surface side, and heating the whole in the obtained state, thereby sealing the solar battery cell while electrically connecting and adhering the first wiring member and the second wiring member to the respective electrodes.

8. pA solar battery module comprising:

a plurality of solar battery cells;

electrodes connected to a light-receiving surface and a rear surface of each of the plurality of solar battery cells, respectively;

a first wiring member placed opposite to the electrode of the light-receiving surface side and a second wiring member placed opposite to the electrode of the rear surface side; and

the conductive adhesive according to claim 1, interposed between the electrode of the light-receiving surface side and the first wiring member and between the electrode of the rear surface side and the second wiring member;

wherein the first wiring member and the second wiring member each are electrically connected and adhered to the electrode, and

the wiring members are connected to each other so that the plurality of solar battery cells are electrically connected.