cm) was calculated based on the measured film thickness and electric resistance.

[0089] <Measurement of Contact Resistance with ITO>

For measurement of the contact resistance with ITO, a glass substrate coated with ITO on a surface was used. An electrode was formed on the ITO glass substrate using a conductive paste of each of Examples and Comparative Examples, and then the contact resistance (ITO) was measured by a transfer length method (TLM).

[0090] <Measurement of Contact Resistance with AZO>

For measurement of the contact resistance with AZO, a glass substrate coated with AZO on a surface was used. An electrode was formed on the ITO glass substrate using a conductive paste of each of Examples and Comparative Examples, and then the contact resistance (AZO) was measured by the transfer length method (TLM).

[0091] <Screen Printability>

The conductor pattern after the screen printing performed in the above-described "formation of cured film" was visually observed, and the screen printability was evaluated based on the following criteria.

≪Determination Criteria≫

A: No blur was observed, and printability was good.

B: Blur was observed, and printability was poor.

[0092] Table 1 shows the blending conditions of the conductive paste compositions prepared in Examples and Comparative Examples, the volume resistivity, measurement results of the contact resistance with ITO and the contact resistance with AZO, and evaluation result of the screen printability of each of the obtained cured films. Blanks in the blending conditions in Table 1 mean that the raw materials were not used.

[0093] It can be seen from Table 1 that the cured films formed from the conductive paste compositions obtained in Examples have low volume resistivity, low contact resistance with ITO, low contact resistance with AZO, and excellent screen printability. That is, although the conductive paste compositions obtained in Examples were cured at a temperature lower than that in the related art to form the cured films, it was demonstrated that such a cured film had a low volume resistivity and a small contact resistance with ITO or AZO, and was also excellent in screen printability.

[0094] [Table 1]

CLAIMS

[Claim 1]

A conductive paste composition comprising:

a conductive material (A);

an epoxy resin (B);

a metal chelate (C); and

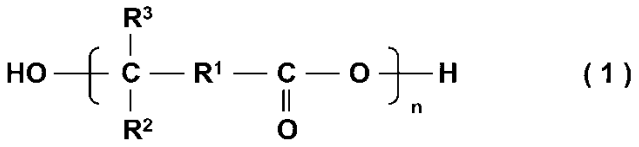
a polyhydroxy fatty acid (D), wherein

the epoxy resin (B) has a weight average molecular weight of 2000 or more and 120000 or less,

the metal chelate (C) is at least one selected from the group consisting of an aluminum chelate, a zirconium chelate, and a titanium chelate,

the polyhydroxy fatty acid (D) is represented by the following general formula (1):

[Chem 1]



(1)

(in Formula (1), R^1 represents an alkylene group or an alkenylene group, R^2 and R^3 are the same or different and represent a hydrogen atom, an alkyl group, or an alkenyl group, and n is a number average degree of polymerization and is an integer of 2 or more and 8 or less), and

the polyhydroxy fatty acid (D) has a constituent unit derived from a hydroxy fatty acid having 12 or more and 22 or less carbon atoms.

[Claim 2]

The conductive paste composition according to claim 1, which is used for a solar cell.

[Claim 3]

A solar cell comprising:

a collecting electrode on which a cured film of the conductive paste composition according to claim 2 is formed.

[Claim 4]

A solar cell module comprising:
the solar cell according to claim 3.