SPECIFICATION

TITLE OF INVENTION: RESIN COMPOSITION SHEET AND METHOD FOR MOLDING THEREOF

TECHNICAL FIELD

[0001] The present invention relates to a resin composition sheet. Moreover, the present invention relates to a method for molding a resin composition sheet.

BACKGROUND ART

[0002] A "sheet material formed from a blend obtained by blending amorphous polyester resin with polycarbonate resin" has been proposed in the past (for example, see Japanese Unexamined Patent Publication No. 2004-91691). Thus, such a sheet material can serve in the manufacture of product packaging such as carrier tapes, and the like.
their molding temperatures can be lowered from 260-280 °C to 200-250 °C, and the users of such sheet materials can contribute to reducing energy expenditures.

PRIOR ART LITERATURE

PATENT LITERATURE

[0003] Patent Document 1: Japanese Unexamined Patent Publication No. 2004-91691

SUMMARY OF THE INVENTION

PROBLEM TO BE SOLVED BY THE INVENTION

[0004] However, when such sheet materials are heated to temperatures in the vicinity of 200-250 °C using a contact type heating device, the shape of the mold-releasing film (e.g., Teflon®) that is mounted on a heating platen of the contact heating device can give rise to a poor appearance being transferred to the sheet materials.
For this problem, it is believed that the countermeasure is due to the preset temperature for the heating platen being relatively low, which by itself is frequently the reason why sufficient precise molding is not obtained.

[0005] The object of the present invention is to provide a resin composition sheet that when used in the manufacture of product packaging such as carrier tapes, and the like.
the molding temperatures can be lowered from 260-280 °C to 200-250 °C,even

CLAIMS

[Claim 1] Resin composition sheet comprising
a polycarbonate resin;
an amorphous polyester resin;
and a silicate compound filler.

[Claim 2] The resin composition sheet as recited in Claim 1,
wherein the silicate compound filler is added as 1 part by weight or more and 3 parts by weight or less when the total amount of the polycarbonate resin and amorphous polyester resin is taken as 100 parts by weight.

[Claim 3] The resin composition sheet as recited in Claim 1 or Claim 2,
wherein the polycarbonate resin is added as 30 parts by weight or more and 80 parts by weight or less when the total amount of the polycarbonate resin and amorphous polyester resin is taken as 100 parts by weight.

[Claim 4] The resin composition sheet as recited in any one of Claims 1 through 3,
wherein the amorphous polyester resin is composed of at least 1 type of dicarboxylic acid-derived unit selected from the group comprising terephthalic acid-derived units and terephthalic acid derivative-derived units, and of glycol-derived units including less than 50 mol% of 1,4-cyclohexanedimethanol-derived units.

[Claim 5] The resin composition sheet as recited in any one of Claims 1 through 3,
wherein the amorphous polyester resin is composed of at least 1 type of dicarboxylic acid-derived unit selected from the group comprising terephthalic acid-derived units and terephthalic acid derivative-derived units, and of glycol-derived units including 50 mol% or more of 1,4-cyclohexanedimethanol-derived units.

[Claim 6] The resin composition sheet as recited in any one of Claims 1 through 5,
wherein the further comprising conductive carbon blacks that has absorbed oil content of 130 cm^3/100 g or more, the pH of 8 or higher.

[Claim 7] The resin composition sheet as recited in any one of Claims 1 through 6,
wherein the conductive carbon black has a volatile matter content of 0.3 wt% or less.

[Claim 8] The resin composition sheet as recited in Claim 6 or Claim 7, wherein the conductive carbon black is added as 5 parts by weight or more and 25 parts by weight or less when the total amount of the polycarbonate resin and amorphous polyester resin is taken as 100 parts by weight.

[Claim 9] Method for molding the resin composition sheet comprising any one of Claims 1 through 8,
a heating step for heating the resin composition sheet via being placed in contact with a heating medium with a mold-releasing film described in Claims 1 through 8,
and a molding step wherein the resin composition sheet that has been heated in the heating step is molded into a predetermined shape.

SPECIFICATION

TITLE:NOVEL IMMUNOTHERAPY AGAINST SEVERAL TUMORS INCLUDING GASTROINTESTINAL AND GASTRIC CANCER

TECHNICAL FIELD

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BACKGROUND ART

[0002] A "sheet material formed from a blend obtained by blending amorphous polyester resin with polycarbonate resin" has been proposed in the past (for example, see Japanese Unexamined Patent Publication No. 2004-91691). Thus, such a sheet material can serve in the manufacture of product packaging such as carrier tapes, and the like.
their molding temperatures can be lowered from 260-280 °C to 200-250 °C, and the users of such sheet materials can contribute to reducing energy expenditures.

PRIOR ART LITERATURE

PATENT LITERATURE

[0003] Patent Document 1: Japanese Unexamined Patent Publication No. 2004-91691

SUMMARY OF THE INVENTION

PROBLEM TO BE SOLVED BY THE INVENTION

[0004] However, when such sheet materials are heated to temperatures in the vicinity of 200-250 °C using a contact type heating device, the shape of the mold-releasing film (e.g., Teflon®) that is mounted on a heating platen of the contact heating device can give rise to a poor appearance being transferred to the sheet materials.
For this problem, it is believed that the countermeasure is due to the preset temperature for the heating platen being relatively low, which by itself is frequently the reason why sufficient precise molding is not obtained.

[0005] The object of the present invention is to provide a resin composition sheet that when used in the manufacture of product packaging such as carrier tapes, and the like.
the molding temperatures can be lowered from 260-280 °C to 200-250 °C,even

CLAIMS

1. Resin composition sheet used in a heat molding comprising
a polycarbonate resin;
an amorphous polyester resin;
and a silicate compound filler of at least any one of plate form and needle form, wherein the silicate compound filler is added as 1 part by weight or more and 3 parts by weight or less when the total amount of the polycarbonate resin and the amorphous polyester resin is taken as 100 parts by weight.

2. The resin composition sheet as recited in Claim 1,
wherein the polycarbonate resin is added as 30 parts by weight or more and 80 parts by weight or less when the total amount of the polycarbonate resin and the amorphous polyester resin is taken as 100 parts by weight.

3. The resin composition sheet as recited in any one of Claims 1 or Claims 2,
wherein the amorphous polyester resin is composed of at least 1 type of dicarboxylic acid-derived unit selected from the group consisting of terephthalic acid-derived units and terephthalic acid derivative-derived units, and of glycol-derived units including less than 50 mol% of 1,4-cyclohexanedimethanol-derived units.

4. The resin composition sheet as recited in any one of Claims 1 or Claims 2,
wherein the amorphous polyester resin is composed of at least 1 type of dicarboxylic acid-derived unit selected from the group consisting of terephthalic acid-derived units and terephthalic acid derivative-derived units, and of glycol-derived units including 50 mol% or more of 1,4-cyclohexanedimethanol-derived units.

5. The resin composition sheet as recited in any one of Claims 1 through 4,
wherein the further comprising conductive carbon blacks that has absorbed oil content of 130 cm^3/100 g or more, the pH of 8 or higher.

6. The resin composition sheet as recited in any one of Claims 1 through 5,
wherein the conductive carbon black has a volatile matter content of 0.3 wt%

or less.

7. The resin composition sheet as recited in Claim 5 or Claim 6, wherein the conductive carbon black is added as 5 parts by weight or more and 25 parts by weight or less when the total amount of the polycarbonate resin and the amorphous polyester resin is taken as 100 parts by weight.

8. Method for manufacturing the resin molded product, a heating step for heating the resin composition sheet via being placed in contact with a heating medium with a mold-releasing film described in any one of Claims 1 through 7, and a molding step wherein the resin composition sheet that has been heated in the heating step is molded into a predetermined shape.

9. The resin composition sheet as recited in any one of Claims 1 through 7, wherein the heat molding is a heat molding into carrier tapes.

10. The method for manufacturing the resin molded product as recited in Claim 8, wherein a molding temperature is 200°C or more and 250°C or less in the molding step.