surface layer formed of a particle-containing fluororesin and laminated to the face which is placed during the curing on the side of the thermosetting resin among the two faces of the base layer, and,

the mold has an irregularity formed on the face brought into contact with the release film during the curing.

[0010]

There is provided a mold for use in curing a thermosetting resin, wherein in the curing the mold is used in combination with a release film, wherein:

the mold has an irregularity formed on the face brought into contact with the release film during the curing,

the surface roughness Ra of the face of the mold is 1 μm to 4 μm,

the irregularity is an irregularity formed by electrical discharge machining or shot blast,

in the curing, the irregularity is reflected on the surface of the thermosetting resin via the release film, and

the mold is used for forming a surface whose glossiness at an incidence angle of 60 degrees is 3 to 50, on a molded article obtained by curing the thermoplastic resin.

[0011]

The present invention also provides a method of manufacturing a molded article

comprising a placing step in which a release film is placed in a mold used for curing a thermosetting resin, a curing step after the placing step, in which the thermosetting resin is cured, while being in contact with the release film, in the mold, and, a releasing step after the curing step, in which the cured thermosetting resin is released from the mold thereby obtaining a molded article,

wherein:

the release film comprises a base layer formed of a thermoplastic resin and a surface layer formed of a particle-containing fluororesin and laminated to the face which is placed during the curing on the side of the thermosetting resin among the two faces of

CLAIMS

[Claim 1]

A combination of a mold used for curing a thermosetting resin and a release film placed between the thermosetting resin and the mold during the curing, wherein:

the release film comprises:

a base layer formed of a thermoplastic resin and,

a surface layer formed of a particle-containing fluororesin and laminated to the face which is placed during the curing on the side of the thermosetting resin among the two faces of the base layer,

the fluororesin is a cured product of a fluororesin composition containing a reactive functional group-containing fluoropolymer and a curing agent, and,

the mold has an irregularity formed on the face that is to be brought into contact with the release film during the curing.

[Claim 2]

The combination according to claim 1, wherein an average particle size of the particle determined by laser diffraction particle size analysis is 1μm to 10 μm.

[Claim 3]

The combination according to claim 1 or 2, wherein the surface roughness Ra of the face of the mold brought into contact with the release film during the curing is 1 μm to 4 μm.

[Claim 4]

The combination according to any one of claims 1 to 3 wherein the fluororesin of the surface layer comprises a tetrafluoroethylene resin.

[Claim 5]

The combination according to any one of claims 1 to 4 wherein the fluororesin

of the surface layer further contains an isocyanate curing agent.

[Claim 6]

The combination according to any one of claims 1 to 5 wherein the particle is silicon dioxide.

[Claim 7]

The combination according to any one of claims 1 to 6 wherein the thermoplastic resin of the base layer is a polyethylene terephthalate resin.

[Claim 8]

The combination according to any one of claims 1 to 7 wherein the thermosetting resin is an epoxy resin.

[Claim 9]

The combination according to any one of claims 1 to 8 which is used for forming irregularity on a surface of a cured product of the thermosetting resin.

[Claim 10]

The combination according to claim 9 wherein the irregularity formed on the surface of a cured product of the thermosetting resin is different from the irregularity of the mold.

[Claim 11]

The combination according to any one of claims 1 to 10 wherein the combination is used for transfer molding or compression molding.

[Claim 12]

A method of manufacturing a molded article comprising:

a placing step in which a release film is placed in a mold used for curing a thermosetting resin,

a curing step after the placing step, in which the thermosetting resin is cured,

while being in contact with the release film, in the mold, and,

a releasing step after the curing step, in which the cured thermosetting resin is released from the mold thereby obtaining a molded article,

wherein:

the release film comprises:

a base layer formed of a thermoplastic resin and,

a surface layer formed of a particle-containing fluororesin and laminated to the face which is placed during the curing on the side of the thermosetting resin among the two faces of the base layer,

the fluororesin is a cured product of a fluororesin composition containing a reactive functional group-containing fluoropolymer and a curing agent, and,

the mold has an irregularity formed on the face brought into contact with the release film during the curing.