CLAIMS

1. A release film for production of a ceramic green sheet, the release film comprising:

a polyester film; and

a release layer laminated on at least one surface of the polyester film directly or with another layer interposed between the polyester film and the release layer, the release layer having a thickness of 0.2 to 3.5 μm,

wherein the release layer has a surface having area surface roughness (Sa) of 5 to 40 nm and a maximum peak height (Rp) of 60 nm or less; and

wherein the release layer is obtained by curing a coating film containing at least:

an energy ray-curable compound (I) having 3 or more reactive groups in one molecule and being a sea component in the release layer to be obtained;

a resin (II) being incompatible with the energy ray-curable compound (I) and being an island component in the release layer to be obtained; and

a release component (III).

2. The release film for production of a ceramic green sheet according to claim 1, wherein the energy ray-curable

compound (I) is an energy ray-curable monomer having 3 or more (meth)acryloyl groups in one molecule; and

the resin (II) is at least one kind selected from a group consisting of a polyester resin, an acrylic resin, a urethane resin, a polyester urethane resin, a polyimide-based resin, a polyamide imide-based resin, and a cellulose-based resin.

3. The release film for production of a ceramic green sheet according to claim 1 or 2, wherein the release layer is substantially free of an inorganic particle.

4. The release film for production of a ceramic green sheet according to any one of claims 1 to 3,

wherein:

the polyester film is a laminated polyester film including two or more layers including at least a surface layer A and a surface layer B opposite to the surface layer A;

the release layer is laminated on the surface layer A; and

the surface layer A is substantially free of an inorganic particle.

5. The release film for production of a ceramic green sheet according to claim 4,

wherein:

the surface layer B contains a particle;

the particle is a silica particle and/or a calcium carbonate particle; and

a total content of the particle is 5000 to 15000 ppm based on a total mass of the surface layer B.

6. The release film for production of a ceramic green sheet according to any one of claims 1 to 3,

wherein:

the polyester film is substantially free of an inorganic particle; and

a coating layer containing a particle is laminated on a surface of the polyester film on which the release layer is not laminated.

7. The release film for production of a ceramic green sheet according to any one of claims 1 to 6,

wherein:

a release layer-forming coating solution for forming the release layer further comprises a photopolymerization initiator;

a content of the energy ray-curable compound (I) in the solid content of the release layer-forming coating solution is 60 to 98% by mass;

a content of the resin (II) in the solid content of the release layer-forming coating solution is 1 to 40% by mass;

a content of the release component (III) in the solid content of the release layer-forming coating solution is 0.05 to 10% by mass; and

contents of components (I), (II), (III), and the photopolymerization initiator becomes 100% by mass in total.

8. The release film for production of a ceramic green sheet according to any one of claims 1 to 7,

wherein:

the energy ray-curable compound (I) is an energy ray-curable monomer having 3 or more (meth)acryloyl groups in one molecule; and

the energy ray-curable monomer having 3 or more (meth)acryloyl groups in one molecule includes at least one kind selected from isocyanuric acid triacrylate, glycerin tri(meth)acrylate, pentaerythritol tri(meth)acrylate, pentaerythritol tetra(meth)acrylate, trimethylolpropane tri(meth)acrylate, ditrimethylolpropane tetra(meth)acrylate,

dipentaerythritol tri(meth)acrylate, dipentaerythritol tetra(meth)acrylate, dipentaerythritol penta(meth)acrylate, and dipentaerythritol hexa(meth)acrylate.

9. A method for producing a ceramic green sheet,

the method comprising forming the ceramic green sheet using the release film for production of a ceramic green sheet according to any one of claims 1 to 8,

wherein the formed ceramic green sheet has a thickness of 0.2 μm to 1.0 μm.