CLAIMS

[Claim 1]

A cosmetic sheet to be put on a discolored portion of skin, comprising:

a thin film, one surface of which is to be put on the skin;

a complementary color layer formed by applying an ink with a color tone complementary to a color of the discolored portion to the other surface of the thin film;

a light scattering layer formed by applying an ink containing a reflective material to the complementary color layer; and

a coloring layer formed by applying a coloring material ink to the light scattering layer,

wherein each of the inks for the complementary color layer, the light scattering layer, and the coloring layer further contains a higher alcohol having three or more carbon atoms, purified water, and an acrylic resin, and

the acrylic resin contains at least one polymer selected from the group consisting of homopolymers of an acrylic monomer and copolymers of two or more acrylic monomers.

[Claim 2]

The cosmetic sheet according to Claim 1, wherein

the complementary color layer has a basic color of blue and has a maximum at a wavelength in the range of 380 to 570 nm in its spectral reflectance curve.

[Claim 3]

The cosmetic sheet according to Claim 1, wherein

the light scattering layer has a thickness in the range of 0.1 to 10 when the complementary color layer has a thickness of 1.

[Claim 4]

The cosmetic sheet according to Claim 1, wherein

the complementary color layer also has skin color.

[Claim 5]

The cosmetic sheet according to Claim 4, wherein

the complementary color layer has a color tone of peach orange, purple, green, or pink.

[Claim 6]

The cosmetic sheet according to Claim 1, wherein

the complementary color layer has different shades of color in a thickness direction.

[Claim 7]

A method for producing a cosmetic sheet to be put on a discolored portion of skin, the method comprising:

a step of applying a complementary color layer ink containing a coloring material complementary to the color of the discolored portion to one surface of a thin film, the other surface of which is to be put on the skin, and drying the complementary color layer ink to form a complementary color layer;

a step of applying a light scattering layer ink containing a reflective material to the complementary color layer and drying the light scattering layer ink to form a light scattering layer; and

a step of applying a coloring layer ink containing a coloring material to the light scattering layer and drying the coloring layer ink to form a coloring layer, wherein each of the complementary color layer ink, the light scattering layer ink, and the coloring layer ink contains a higher alcohol having three or more carbon atoms, purified water, and an acrylic resin, and

the acrylic resin contains at least one polymer selected from the group consisting of homopolymers of an acrylic monomer and copolymers of two or more acrylic monomers.

[Claim 8]

The method for producing a cosmetic sheet according to Claim 7, wherein

wherein the light scattering layer has a thickness in the range of 0.1 to 10 when the complementary color layer has a thickness of 1.

[Claim 9]

An image-processing apparatus for producing the cosmetic sheet according to any one of Claims 1 to 6, the image-processing apparatus comprising:

an image analyzer for determining a discolored region corresponding to the discolored portion from an image of the discolored portion; and

a sheet information providing unit for determining the color of the complementary color layer at least on the basis of a* and b* values of an L*a*b* color space in the discolored region and providing sheet information including information about the determined color of the complementary color layer.

[Claim 10]

The image-processing apparatus according to Claim 9, wherein

the sheet information providing unit determines the thickness of the light scattering layer on the basis of an L* value, the a* value, and the b* value of the L*a*b* color space in the discolored region and/or the color of the complementary color layer and includes information about the determined thickness of the light scattering layer in the sheet information.

[Claim 11]

The image-processing apparatus according to Claim 9, wherein

the sheet information providing unit determines the color of the coloring layer on the basis of an L* value, the a* value, and the b* value of the L*a*b* color space around the discolored region and includes information about the determined color of the coloring layer in the sheet information.

[Claim 12]

The image-processing apparatus according to Claim 11, further comprising:

a finish checker for displaying a simulated image in which a cosmetic sheet formed according to the sheet information is placed on the discolored portion and receiving adjustment of the color of the coloring layer included in the sheet information.

[Claim 13]

An image-processing apparatus for producing the cosmetic sheet according to any one of Claims 1 to 6, the image-processing apparatus comprising:

an image analyzer for determining a discolored region corresponding to the discolored portion from an image of the discolored portion;

a database for

storing Lab color information about the periphery of the discolored region in a mesh space in which an L* axis, an a* value, and a b* value of an L*a*b* color space are divided at specified intervals,

storing a candidate color to be applied to the complementary color layer, the light scattering layer, and the coloring layer in the mesh space divided at the specified intervals, and

storing information about color viewed from the coloring layer when the complementary color layer, the light scattering layer, and the coloring layer are laminated in this order and information about a combination of the complementary

color layer, the light scattering layer, and the coloring layer; and

a sheet information providing unit for referring to coordinates including a color combination of the complementary color layer determined from the Lab color information of the discolored region from the database, comparing the coordinates with coordinates on a mesh of Lab color information about the periphery of the discolored region, determining a combination of the complementary color layer, the light scattering layer, and the coloring layer from the nearest coordinates, and providing sheet information including the determined combination of the complementary color layer, the light scattering layer, and the coloring layer.

[Claim 14]

An image-processing method regarding production of the cosmetic sheet according to any one of Claims 1 to 6, the image-processing method comprising:

determining a discolored region corresponding to the discolored portion from an image of the discolored portion; and

determining the color of the complementary color layer on the basis of a* and b* values of an L*a*b* color space in the determined discolored region and providing sheet information including information about the determined color of the complementary color layer.