CLAIMS

[Claim 1]

A method for producing a wax, comprising:

a first precipitation process in which a first solid component is precipitated from a mixed oil obtained by adding a low-temperature fluidity improving agent to a hydrocarbon oil having a 10% volume distillation temperature of 300°C or higher under a temperature condition of 5 to 40°C; and

a first separation process in which the first solid component is collected as a first non-permeate component by a solid-liquid separation method.

[Claim 2]

The production method according to claim 1,

wherein the pour point of the mixed oil is 20°C or lower.

[Claim 3]

The production method according to claim 1 or 2,

wherein a pour point of a first permeate component separated in the first separation process is lower than the pour point of the hydrocarbon oil by 5°C or more.

[Claim 4]

The production method according to any one of claims 1 to 3,

wherein the first solid component contains 40 volume% or more of normal paraffin having 18 or more carbon atoms.

[Claim 5]

The production method according to any one of claims 1 to 4, further comprising

a first washing process in which the first solid component is washed with at least one solvent selected from the group consisting of normal pentane, normal hexane, 2-propanol, 2-butanone, acetone and toluene.

[Claim 6]

The production method according to claim 5,

wherein the first solid component after the first washing process contains 80 volume% or more of normal paraffin having 20 or more carbon atoms.

[Claim 7]

The production method according to any one of claims 1 to 4, further comprising:

a second precipitation process in which a mixture containing 80 volume% or more of at least one selected from the group consisting of 2-propanol, 2-butanone and acetone is added to a solution prepared by dissolving the first solid component in a mixture of 40°C or higher containing 80 volume% or more of at least one selected from the group consisting of normal pentane and normal hexane, and a second solid component is precipitated; and

a second separation process in which the second solid component is collected as a second non-permeate component by a solid-liquid separation method.

[Claim 8]

The production method according to claim 7, further comprising

a second washing process in which the second solid component is washed with at least one solvent selected from the group consisting of

normal pentane, normal hexane, 2-propanol, 2-butanone, acetone and toluene.

[Claim 9]

The production method according to claim 8,

wherein the second solid component after the second washing process contains 90 volume% or more of normal paraffin having 20 or more carbon atoms.

[Claim 10]

The production method according to any one of claims 1 to 9,

wherein the low-temperature fluidity improving agent includes at least one selected from the group consisting of ethylene-vinyl acetate copolymers, polyalkyl methacrylate, imide alkenyl succinate, polyalkylene oxide fatty acid ester, polyalkyl acrylate, alkyl naphthalene and dendrimers.

[Claim 11]

The production method according to any one of claims 1 to 10,

wherein the solid-liquid separation method is performed by filtration using a filter having a pore size of 2 μm or more or centrifugation, under a temperature condition of higher than 0°C.

[Claim 12]

A method for producing a lubricant base oil, comprising

a base oil producing process in which a lubricant base oil is obtained from the wax produced by the production method according to any one of claims 1 to 11.