[NAME OF DOCUMENT] CLAIMS

[Claim 1]

An ink composition for screen printing for a glass substrate, comprising an ink composition for high-quality/high-definition screen printing that, when producing printed matter by screen printing onto a glass substrate using a 360-mesh screen printing plate formed by a high-strength, non-deforming stainless steel mesh with a filament diameter of 25 μm, produces printed matter with a printed image edge spreading width of not more than 10 μm from the image design dimensions of the printing plate,

wherein the ink composition for screen printing containing a solvent with a boiling point of not less than 170°C at not less than 70 mass% of the total solvent and

a prepolymer or polymer with a weight-average molecular weight of not less than 2000 at not less than 2 mass% with respect to the total ink composition,

and with a viscosity of 5 to 180 Pa·s as measured with a BH-type rotating viscosimeter at 25°C and a thixotropic index (TI value) of 2.0 to 8.0,

the measured flow radius value of the ink composition being 13.0 to 24.0 mm after 1 minute from the start of measurement by a flow property measuring method using a spread meter at

25°C according to JIS K5701-1:2000,

satisfying "F60" - "F45" ≦ 1.0 mm, where "F60" is defined as the measured flow radius value after 1 minute and "F45" is defined as the measured flow radius value after 45 seconds from the start of measurement by the flow property measuring method using the spread meter, and

containing a coupling agent compound.

[Claim 2]

The ink composition for screen printing for a glass substrate according to Claim 1, wherein the surface tension of the ink composition is 23.0 to 36.0 dyn/cm as the value measured with a liquid surface tension meter.

[Claim 3]

The ink composition for screen printing for a glass substrate according to Claim 1 or 2, wherein the solvent with a boiling point of not less than 170°C includes butylcellosolve acetate and/or dialkyl adipate ester.

[Claim 4]

The ink composition for screen printing for a glass substrate according to any one of Claims 1 to 3, wherein the ink composition contains at least one coloring material, extender pigment and filler, or their combination, the coloring material, extender pigment and filler are dispersed in the ink

composition with a mean particle size of not more than 35 μm.

[Claim 5]

The ink composition for screen printing for a glass substrate according to any one of Claims 1 to 4, wherein the ink composition is an ink composition for graphic decorative screen printing.

[Claim 6]

The ink composition for screen printing for a glass substrate according to any one of Claims 1 to 4, wherein the ink composition is an ink composition for screen printing to be used for black matrix, black stripe, resist pattern, spacer or light guiding panel dot formation.

[Claim 7]

The ink composition for screen printing for a glass substrate according to any one of Claims 1 to 4, wherein the ink composition is printed onto a glass substrate with a measured wetting test solution value of 32.0 to 60.0 dyn/cm.

[Claim 8]

Printed matter produced by the screen printing ink composition for screen printing onto a glass substrate according to any one of Claims 1 to 7.

[Claim 9]

A method for producing printed matter, wherein printed

matter is produced by printing the screen printing ink composition according to any one of Claims 1 to 7 onto a glass substrate by screen printing.

CLAIMS

[Claim 1]

An ink composition for screen printing for a glass substrate, comprising an ink composition for high-quality/high-definition screen printing that, when producing printed matter by screen printing onto a glass substrate using a 360-mesh screen printing plate formed by a high-strength, non-deforming stainless steel mesh with a filament diameter of 25 μm, produces printed matter with a printed image edge spreading width of not more than 10 μm from the image design dimensions of the printing plate,

wherein the ink composition for screen printing containing a solvent, which is selected from one or two more of solvent among butylcellosolve acetate, dialkyl adipate ester, isophorone, 3-methoxy-3-methylbutanol, 3-methoxy-3-methylbutyl acetate, coal tar naphtha with a boiling point of not less than 170°C, diethyleneglycol monoethyl ether, diethyleneglycol monoethyl ether acetate, diethyleneglycol monobutyl ether, triethyleneglycol monobutyl ether, triethyleneglycol monobutyl ether acetate, (meth)acrylate monomer, vinyl ether monomer or amide monomer, with a boiling point of not less than 170°C at not less than 70 mass% of the total solvent and

a prepolymer or polymer with a weight-average molecular weight of not less than 2000 at not less than 2 mass% with respect to the total ink composition,

and with a viscosity of 5 to 180 Pa·s as measured with a BH-type rotating viscosimeter at 25°C and a thixotropic index (TI value) of 2.0 to 8.0,

the measured flow radius value of the ink composition being 13.0 to 24.0 mm after 1 minute from the start of measurement by a flow property measuring method using a spread meter at 25°C according to JIS K5701-1:2000,

satisfying "F60" - "F45" ≦ 1.0 mm, where "F60" is defined as the measured flow radius value after 1 minute and "F45" is defined as the measured flow radius value after 45 seconds from the start of measurement by the flow property measuring method using the spread meter, and

containing a coupling agent compound.

[Claim 2]

The ink composition for screen printing for a glass substrate according to Claim 1, wherein the surface tension of the ink composition is 23.0 to 36.0 dyn/cm as the value measured with a liquid surface tension meter.

[Claim 3]

The ink composition for screen printing for a glass

substrate according to Claims 1 or 2, wherein the ink composition contains at least one coloring material, extender pigment and filler, or their combination, the coloring material, extender pigment and filler are dispersed in the ink composition with a mean particle size of not more than 35 μm.

[Claim 4]

The ink composition for screen printing for a glass substrate according to any one of Claims 1 to 3, wherein the ink composition is an ink composition for graphic decorative screen printing.

[Claim 5]

The ink composition for screen printing for a glass substrate according to any one of Claims 1 to 3, wherein the ink composition is an ink composition for screen printing to be used for black matrix, black stripe, resist pattern, spacer or light guiding panel dot formation.

[Claim 6]

The ink composition for screen printing for a glass substrate according to any one of Claims 1 to 3, wherein the ink composition is printed onto a glass substrate with a measured wetting test solution value of 32.0 to 60.0 dyn/cm.

[Claim 7]

Printed matter having ink layer of the screen printing

ink composition for screen printing onto a glass substrate according to any one of Claims 1 to 6.

[Claim 8]

A method for producing printed matter, wherein printed matter is produced by printing the screen printing ink composition according to any one of Claims 1 to 6 onto a glass substrate by screen printing.