14.00 parts by mass

Oxazoline-based cross-linking agent C-1 (solid content concentration: 10 mass%):

12.00 parts by mass

[0133]

(Example 14)

A release polyester film was obtained in the same manner as in Example 1 except that the thickness of a release layer was changed to 0.035 μm.

[0134]

(Example 15)

A release polyester film was obtained in the same manner as in Example 1 except that the thickness of a release layer was changed to 0.100 μm.

[0135]

(Example 16)

A release polyester film was obtained in the same manner as in Example 1 except that the thickness of a release layer was changed to 0.140 μm.

[0136]

(Reference Example 17)

A release polyester film was obtained in the same manner as in Example 1 except that an acrylic resin (acrylic polyol resin) A-1 (solid content concentration: 20 mass%) in a release coating solution 1 used in Example 1

was changed to an acrylic resin (acrylic polyol resin) A-4 (solid content concentration: 20mass%).

[0137]

(Reference Example 18)

A release polyester film was obtained in the same manner as in Example 1 except that an acrylic resin (acrylic polyol resin) A-1 (solid content concentration: 20 mass%) in a release coating solution 1 used in Example 1 was changed to an acrylic resin (acrylic polyol resin) A-5 (solid content concentration: 20mass%).

[0138]

(Example 19)

A release polyester film was obtained in the same manner as in Example 1 except that PET (II) of a surface layer A of a PET substrate was changed to PET (III).

Here, a PET substrate that does not contain a release layer is taken as Y. The intrinsic viscosity of the obtained PET substrate was 0.59 dl/g. Sa of the surface layer A of the PET substrate Y before the release layer is laminated was 10 nm, and P thereof was 130 nm.

[0139]

(Example 20)

A release polyester film was obtained in the same manner as in Example 1 except that a release coating solution 1 was changed to the following release coating

[Table 2]

	PET Substrate	Release Coating Solution (Composition Ratio is Represented by Parts by Mass of Each Solid Content)								
		Applying Solution	Resin		Cross-Linking Agent or Catalyst	Resin/Cross-Linking Agent or Catalyst Ratio (parts by mass)	Particle	Particle Ratio (parts by mass)	Additive	Additive Ratio (parts by mass)
			Type	SMA Ratio mol%						
Example 1	Z	1	A-1	20	C-1	70/30	-	-	G-1	1.0
Example 2	Z	2	A-1	20	C-1	90/10	-	-	G-1	1.0
Example 3	Z	3	A-1	20	C-1	80/20	-	-	G-1	1.0
Example 4	Z	4	A-1	20	C-1	50/50	-	-	G-1	1.0
Example 5	Z	5	A-2	10	C-1	70/30	-	-	G-1	1.0
Example 6	Z	6	A-1	20	C-2	70/30	-	-	G-1	1.0
Example 7	Z	7	A-2	10	C-2	70/30	-	-	G-1	1.0
Example 8	Z	8	A-1	20	D-1	60/40	-	-	G-1	1.0
Example 9	Z	9	A-1	20	C-1	70/30	F-1	5	G-1	1.0
Example 10	Z	10	A-1	20	C-1	70/30	F-1	10	G-1	1.0
Example 11	Z	11	A-1	20	C-1	70/30	-	-	G-2	1.0
Example 12	Z	12	A-1	20	C-1	70/30	-	-	H-1	1.0
Example 13	Z	13	A-1	20	C-1	70/30	-	-	-	-
Example 14	Z	1	A-1	20	C-1	70/30	-	-	G-1	1.0
Example 15	Z	1	A-1	20	C-1	70/30	-	-	G-1	1.0
Example 16	Z	1	A-1	20	C-1	70/30	-	-	G-1	1.0
Reference Example 17	Z	14	A-4	20	C-1	70/30	-	-	G-1	1.0
Reference Example 18	Z	15	A-5	50	C-1	70/30	-	-	G-1	1.0
Example 19	Y	1	A-1	20	C-1	70/30	-	-	G-1	1.0
Example 20	Z	16	A-1	20	C-1	70/30	-	-	G-1	5.0
Example 21	Z	17	A-6	30	C-1	70/30	-	-	G-1	1.0
Comparative Example 1	Z	18	B-1	0	B-2	98/2	-	-	-	-
Comparative Example 2	Z	19	A-3	0	C-1	70/30	-	-	G-1	1.0
Comparative Example 3	Z	20	A-1	20	E-1	70/30	-	-	G-1	1.0
Comparative Example 4	Z	21	A-1	20	-	100/0	-	-	G-1	1.0

SMA Stearyl Methacrylate

[Table 2] (continued)

	Release Layer						Ceramic Green Sheet	Resin Sheet
	Ceramic Peeling Force (mN/mm)	Ceramic Peeling Force Determination	Average Area Surface Roughness Sa (nm)	Maximum Protrusion Height P (nm)	Thickness of Release Coating Layer (nm)	Surface Free Energy γs (mJ/m^2)	Pinhole	Pinhole
Example 1	1.9	Good	0.9	35.4	70	34.5	Good	Good
Example 2	5.4	Moderate	0.9	35.6	70	32.3	Good	Good
Example 3	2.5	Good	1.0	35.9	70	33.5	Good	Good
Example 4	2.0	Good	0.9	34.7	70	35.7	Good	Good
Example 5	3.2	Good	0.9	34.2	70	39.6	Good	Good
Example 6	2.5	Good	0.9	34.5	70	32.9	Good	Good
Example 7	4.3	Moderate	0.9	34.6	70	38.5	Good	Good
Example 8	3.5	Good	1.0	37.8	70	35.8	Good	Good
Example 9	1.7	Good	2.1	46.0	70	36.8	Good	Good
Example 10	1.7	Good	2.9	48.2	70	34.8	Good	Good
Example 11	2.0	Good	0.9	35.4	70	34.7	Good	Good
Example 12	1.9	Good	1.0	38.6	70	33.2	Good	Good
Example 13	2.1	Good	1.0	36.3	70	35.7	Good	Good
Example 14	2.0	Good	0.8	30.1	35	35.5	Good	Good
Example 15	2.0	Good	1.0	38.2	100	34.1	Good	Good
Example 16	2.0	Good	1.2	39.4	140	35.1	Good	Good
Reference Example 17	1.9	Good	4.4	70.0	70	34.6	Moderate	Moderate
Reference Example 18	5.1	Moderate	0.9	34.7	70	31.2	Good	Good
Example 19	1.9	Good	10.5	152.0	70	34.5	Moderate	Moderate
Example 20	2.1	Good	0.9	35.5	70	34.5	Good	Good
Example 21	1.7	Good	0.9	36.7	70	34.5	Good	Good
Comparative Example 1	1.7	Good	0.9	48.2	70	18.0	Poor	Poor
Comparative Example 2	10.5	Poor	0.9	32.8	70	63.2	Poor	Poor
Comparative Example 3	8.5	Poor	0.9	37.2	70	34.3	Poor	Poor
Comparative Example 4	No Measurable	Poor	0.9	35.6	70	31.5	Poor	Poor

CLAIMS

1. A release film comprising:

a polyester film; and

a release layer,

wherein the release film includes the release layer provided on at least one surface of the polyester film directly or with other layer therebetween; and

the release layer is obtained by curing a composition containing an acrylic resin having a long-chain alkyl group and at least one cross-linking agent selected from an oxazoline-based cross-linking agent or a carbodiimide-based cross-linking agent, and

wherein the acrylic resin having the long-chain alkyl group has an acid value of 40 mgKOH/g or more and 400 mgKOH/g or less.

2. The release film according to claim 1, wherein

the acrylic resin contains a long-chain alkyl group-containing acrylate monomer; and

a copolymerization ratio of the long-chain alkyl group-containing acrylate monomer in the acrylic resin is 5 mol% or more and 60 mol% or less.

3. The release film according to claim 1 or 2, wherein

the cross-linking agent is the oxazoline-based cross-linking agent; and

the oxazoline-based cross-linking agent contains 3.0 to 9.0 mmol/g of an oxazoline group.

4. The release film according to any one of claims 1 to 3, wherein the release layer has a thickness of 0.001 μm or more and 2 μm or less.

5. The release film according to any one of claim 1 to 4, wherein the release film is a release film for production of a ceramic green sheet.

6. A method for production of a release film comprising a polyester film and a release layer,

wherein the release film includes the release layer provided on at least one surface of the polyester film directly or with other layer therebetween;

the release layer is obtained by curing a composition containing an acrylic resin having a long-chain alkyl group

and at least one cross-linking agent selected from an oxazoline-based cross-linking agent or a carbodiimide-based cross-linking agent, and

wherein the acrylic resin having the long-chain alkyl group has an acid value of 40 mgKOH/g or more and 400 mgKOH/g or less; and

the method comprises:

coating a release coating solution on a film being an un-stretched film or a uniaxially stretched film;

then stretching the film in at least a uniaxial direction in which the film is un-stretched; and

heat-treating the film.

7. The method for production of a release film according to claim 6, wherein the method is a method for production of a release film for production of a ceramic green sheet.

8. A method for production of a ceramic green sheet, wherein the ceramic green sheet is formed by using the release film for production of a ceramic green sheet according to claim 5 or the method for production of a

release film for production of a ceramic green sheet according to claim 7.

9. The method for production of a ceramic green sheet according to claim 8, wherein the ceramic green sheet to be produced has a thickness of 0.2 μm or more and 2.0 μm or less.

10. A method for production of a ceramic capacitor, wherein the method for production of a ceramic green sheet according to claim 8 or 9 is employed.