[0139]

Table 1

	Optical laminate configuration	Total thickness (μm)	Hard coat thickness (μm)	Protective film	Protective film composition	Protective film thickness (μm)	Polarizer	Polarizer thickness (μm)	Pencil hardness	Scratch resistance	Bending radius (mm)	Bending resistance
Example 1	1	173	5	B1	Acrylic	40	A1	5	2H	○	3	A
Example 2	2	221	5	B1	Acrylic	40	A1	5	2H	○	3	A
Example 3	3	286	5	B1	Acrylic	40	A1	5	2H	○	3	A
Example 4	4	122	5	B1	Acrylic	40	A1	5	2H	○	3	A
Example 5	1	178	10	B1	Acrylic	40	A1	5	4H	○	3	A
Example 6	1	183	15	B1	Acrylic	40	A1	5	5H	○	3	A
Example 7	1	188	20	B1	Acrylic	40	A1	5	6H	○	3	A
Example 8	1	173	5	B1	Acrylic	40	A1	5	2H	○	2	A
Example 9	1	173	5	B1	Acrylic	40	A1	5	2H	○	1	B
Example 10	1	178	10	B1	Acrylic	40	A1	5	4H	○	1	B
Example 11	1	183	15	B1	Acrylic	40	A1	5	5H	○	1	B
Example 12	1	153	5	B2	Polyamide	25	A1	5	3H	○	3	A
Example 13	1	153	0	B3	Polyimide	25	A1	5	2H	×	3	A
Example 14	1	158	5	B3	Polyimide	25	A1	5	5H	○	3	A
Example 15	1	183	5	B4	Polyimide	50	A1	5	5H	○	3	A
Example 16	1	173	5	B5	Polycarbonate	40	A1	5	3H	○	3	A
Example 17	1	183	5	B6	PET	50	A1	5	2H	○	3	A
Example 18	1	173	5	B1	Acrylic	40	A1	5	2H	○	1	A
Comparative Example 1	5	45	5	B1	Acrylic	40	-	-	2H	○	3	C
Comparative Example 2	6	178	10	B7	TAC	40	A1	5	3H	○	3	D
Comparative Example 3	6	185	10	B7	TAC	40	A2	12	3H	○	3	D
Comparative Example 4	6	175	0	B7	TAC	40	A2	12	6B	×	2	D
Comparative Example 5	6	191	10	B7	TAC	40	A3	18	3H	○	3	D
Comparative Example 6	6	196	10	B7	TAC	40	A4	23	3H	○	3	D

Claims

[Claim 1] An optical laminate to be used for an organic electroluminescence display apparatus, comprising, in this order:

a surface protective layer formed of a material selected from acrylic, polyamide, polyimide, polycarbonate, or PET;

a polarizer; and

an optical compensation layer,

wherein the surface protective layer is flexible and has such bendability as to allow the optical laminate to be bent 200,000 times with a radius of curvature of 3 mm or less, capable of substituting for a cover glass for an organic electroluminescence display apparatus, and functions as a protective layer for the polarizer.

[Claim 2] The optical laminate according to claim 1, wherein the surface protective layer is formed of a single resin film.

[Claim 3] The optical laminate according to claim 1, wherein the surface protective layer includes a hard coat layer and a resin film in the stated order from a surface side.

[Claim 4] The optical laminate according to any one of claims 1 to 3, wherein a viewer side surface of the surface protective layer has a pencil hardness of 2H or more and such scratch resistance that the viewer side surface is free of occurrence of a flaw when

rubbed 300 times back and forth with a load of 1,000 g.

[Claim 5] The optical laminate according to any one of claims 1 to 4,

wherein the optical compensation layer is formed of a retardation film,

wherein an in-plane retardation Re(550) of the retardation film is from 100 nm to 180 nm and satisfies a relationship of Re(450)<Re(550)<Re(650), and

wherein an angle formed between a slow axis of the retardation film and an absorption axis of the polarizer is from 35° to 55°.

[Claim 6] The optical laminate according to any one of claims 1 to 4,

wherein the optical compensation layer includes a first liquid crystal alignment fixed layer and a second liquid crystal alignment fixed layer in the stated order from a polarizer side,

wherein the first liquid crystal alignment fixed layer has an in-plane retardation Re(550) of from 180 nm to 320 nm, and the second liquid crystal alignment fixed layer has an in-plane retardation Re(550) of from 100 nm to 180 nm, and

wherein an angle formed between a slow axis of the first liquid crystal alignment fixed layer and an absorption axis of the polarizer is from 10° to 20°, and an angle formed between a slow axis of the second liquid crystal alignment fixed layer and the absorption axis

of the polarizer is from 65° to 85°.

[Claim 7] The optical laminate according to any one of claims 1 to 6, further comprising a conductive layer on an opposite side of the optical compensation layer to the polarizer.

[Claim 8] An organic electroluminescence display apparatus, comprising the optical laminate of any one of claims 1 to 7 on a viewer side, wherein the surface protective layer of the laminate is arranged on the viewer side.

[Claim 9] The organic electroluminescence display apparatus according to claim 8, wherein at least part of the organic electroluminescence display apparatus is bendable with a radius of curvature of 10 mm or less.