CLAIMS

1. A polymer-containing composition comprising:

a (meth)acryl-based copolymer (A-1),

wherein the (meth)acryl-based copolymer (A-1) contains a constitutional unit (U11) represented by Formula (11) or a constitutional unit (U12) represented by Formula (12) and has a weight-average molecular weight of 1,000 to 5,000,

a coating film hardness of the polymer-containing composition is equal to or higher than 2.5 N/mm^2, and

a solubility parameter of the polymer-containing composition is less than 11.1,

$$-(C=O)-O-M-O-(C=O)- \quad \cdots \quad (11)$$

$$-(C=O)-O-M-R^{32} \quad \cdots \quad (12)$$

wherein R^{32} represents an organic acid residue, and M represents a divalent metal atom.

2. A polymer-containing composition comprising:

a (meth)acryl-based copolymer (A-1) and a vinyl-based polymer (B),

wherein the (meth)acryl-based copolymer (A-1) contains a constitutional unit (U11) represented by Formula (11) or a constitutional unit (U12) represented by Formula (12) and has a weight-average molecular weight of 1,000 to 5,000,

the vinyl-based polymer (B) has an acid value less than 25 mgKOH/g and has a number-average molecular weight of 2,000 to 20,000, and

a coating film hardness of the polymer-containing composition is equal to or higher than 2.5 N/mm^2,

-(C=O)-O-M-O-(C=O)- ··· (11)

-(C=O)-O-M-R^{32} ··· (12)

wherein R^{32} represents an organic acid residue, and M represents a divalent metal atom.

3. A polymer-containing composition comprising:

a (meth)acryl-based copolymer (A-1),

wherein the (meth)acryl-based copolymer (A-1) contains a constitutional unit (U11) represented by Formula (11) or a constitutional unit (U12) represented by Formula (12) and has a weight-average molecular weight of 1,000 to 5,000,

the (meth)acryl-based copolymer (A-1) contains a constitutional unit (U3) in addition to the constitutional unit (U11) and the constitutional unit (U12),

the constitutional unit (U3) contains a constitutional unit derived from a monomer (u3-1) having an alicyclic functional group, and

a coating film hardness of the polymer-containing composition is equal to or higher than 2.5 N/mm^2,

-(C=O)-O-M-O-(C=O)- ··· (11)

-(C=O)-O-M-R^{32} ··· (12)

wherein R^{32} represents an organic acid residue, and M represents a divalent metal atom.

4. The polymer-containing composition according to claim 1 or 3, further comprising:

a vinyl-based polymer (B),

wherein the vinyl-based polymer (B) has an acid value less than 25 mgKOH/g and has a number-average molecular weight of 2,000 to 20,000.

5. The polymer-containing composition according to claim 2 or 4,

wherein a Tg of the vinyl-based polymer (B) is equal to or higher than 20°C.

6. The polymer-containing composition according to any one of claims 2, 4 and 5,

wherein a ratio of the (meth)acryl-based copolymer (A-1) : the vinyl-based polymer (B) contained in the polymer-containing composition is 98 : 2 to 70 : 30.

7. The polymer-containing composition according to any one of claims 1 to 6,

wherein the (meth)acryl-based copolymer (A-1) has an acid value equal to or higher than 35 mgKOH/g.

8. The polymer-containing composition according to any one of claims 2 to 7,

wherein a solubility parameter of the polymer-containing composition is less than 11.1.

9. The polymer-containing composition according to any one of claims 1, 2 and 4 to 8,

wherein the (meth)acryl-based copolymer (A-1) contains a constitutional unit (U3) in addition to the constitutional unit (U11) and the constitutional unit (U12), and

the constitutional unit (U3) contains a constitutional unit derived from a monomer (u3-1) having an alicyclic functional group.

10. The polymer-containing composition according to claim 3 or 9,

wherein a constitutional unit whose proportion in the constitutional unit (U3) is equal to or higher than 30% by mass is derived from a monomer having a Tg equal to or higher than 50°C.

11. A polymer-containing composition comprising:

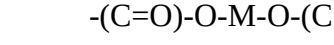
a (meth)acryl-based copolymer (A-2),

wherein the (meth)acryl-based copolymer (A-2) contains a constitutional unit (U11) represented by Formula (11) or a constitutional unit (U12) represented by Formula (12) and has a weight-average molecular weight of 1,000 to 5,000,

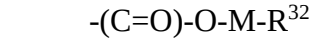
the (meth)acryl-based copolymer (A-2) contains a constitutional unit (U3) in addition to the constitutional unit (U11) and the constitutional unit (U12),

the constitutional unit (U3) contains a constitutional unit derived from a monomer (u3-1) having an alicyclic functional group, and

a constitutional unit whose proportion in the constitutional unit (U3) is equal to or higher than 30% by mass is derived from a monomer having a Tg equal to or higher than 50°C,



-(C=O)-O-M-O-(C=O)- ··· (11)



-(C=O)-O-M-R^{32} ··· (12)

wherein R^{32} represents an organic acid residue, and M represents a divalent metal atom.

12. The polymer-containing composition according to any one of claims 1 to 11,

wherein a Gardner viscosity of the polymer-containing composition is equal to or lower than Z at a solid content of 55%.

13. An antifouling coating composition comprising:

the polymer-containing composition according to any one of claims 1 to 12.

14. The antifouling coating composition according to claim 13, further comprising:

an antifouling agent.

15. The antifouling coating composition according to claim 14,

wherein the antifouling agent is one or more compounds selected from the group consisting of cuprous oxide,
4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-1H-pyrrole-3-carbonitrile,
pyridine-triphenylborane, zinc pyrithione, copper pyrithione, and medetomidine.

16. The antifouling coating composition according to any one of claims 13 to 15, further comprising:

a thermoplastic resin other than the (meth)acryl-based copolymer (A-1), the (meth)acryl-based copolymer (A-2), or the vinyl-based polymer (B).

17. The antifouling coating composition according to any one of claims 13

to 16,

wherein a coating material solid content of the antifouling coating composition equal to or greater than 60%.