CLAIMS

1. A cured paint coat comprising a polysiloxane-based binder matrix and one or more biocides, said binder matrix having included as a part thereof hydrophilic oligomer/polymer moieties, wherein the weight ratio between the hydrophilic oligomer/polymer moieties and the one or more biocides is in the range 1:0.02 to 1:20, and wherein more than 50 % by weight of the binder matrix is represented by polysiloxane parts.

2. The paint coat according to claim 1, wherein the hydrophilic oligomer/polymer moieties are selected from poly(vinyl pyrrolidone), poly[N-(2-hydroxypropyl)methacryl-amide], poly(acrylic acid), poly(glycerol), polyHEMA, polysaccharides, poly(vinyl alcohol), polyketones, poly(aldehyde guluronate), polyvinylamine, polycaprolactones, poly(vinyl acetate), polyoxyalkylenes like poly(ethylene glycol), poly(propylene glycol), poly(2-methyl-2-oxazoline), including copolymers of the foregoing, in particular poly(oxyalkylenes).

3. The paint coat according to claim 2, wherein the poly(oxyalkylene) is selected from polyoxyethylene, polyoxypropylene and poly(oxyethylene-co-oxypropylene).

4. The paint coat according to any one of the preceding claims, wherein at least one biocide is an organic biocide.

5. The paint coat according to any one of the preceding claims, wherein the one or more biocides constitutes 0.1-10 % by dry weight of the paint coat.

6. The paint coat according to any one of the preceding claims, wherein the weight ratio between the hydrophilic oligomer/polymer moieties and the one or more biocides is in the range 1:0.05 to 1:5.

7. A marine structure comprising on at least a part of the outer surface thereof a paint coat as defined in any one of the preceding claims.

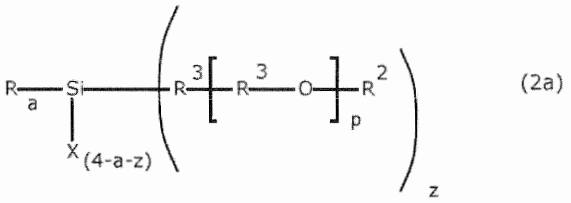
8. The structure according to claim 7, wherein at least as part of the outer surface carrying the outermost coating is a submerged part of said structure.

9. A fouling control coating composition comprising a polysiloxane-based binder system, said binder system comprising one or more reactive polysiloxane components modified with hydrophilic oligomer/polymer moieties, and one or more biocides, wherein the weight ratio between the hydrophilic oligomer/polymer moieties and the one or more biocides is in the

range 1:0.02 to 1:20, and wherein more than 50 % by weight of the binder system is represented by polysiloxane parts.

10. A fouling control coating composition comprising a polysiloxane-based binder system, said binder system comprising one or more hydrophilic oligomer/polymer moieties which at one or both ends carry $-Si(R^*)_3$ groups, wherein each R* independently is selected from C_{1-4}-alkyl and C_{1-4}-alkoxy, at least one being C_{1-4}-alkoxy, and one or more biocides, wherein the weight ratio between the hydrophilic oligomer/polymer moieties and the one or more biocides is in the range 1:0.02 to 1:20, and wherein more than 50 % by weight of the binder system is represented by polysiloxane parts.

11. A fouling control coating composition comprising a polysiloxane-based binder system, said binder system comprising a cross-linker of formula (2a)



(2a)

wherein, each R represents, independently, an unsubstituted or substituted monovalent hydrocarbon group of 1 to 6 carbon atoms or a hydrolysable group; each X represents, independently, a hydrolysable group; each R^2 is independently selected from -H, C_{1-4}-alkyl (e.g. $-CH_3$, $-CH_2CH_3$, $-CH_2CH_2CH_3$, $-CH(CH_3)_2$, $-CH_2CH_2CH_2CH_3$), phenyl ($-C_6H_5$), and C_{1-4}-alkylcarbonyl (e.g. $-C(=O)CH_3$, $-C(=O)CH_2CH_3$ and $-C(=O)CH_2CH_2CH_3$), in particular -H and methyl; each R^3 is independently selected from C_{2-5}-alkylene (e.g. $-CH_2CH_2-$, $-CH_2CH(CH_3)-$, $-CH_2CH_2CH_2-$, $-CH_2CH_2CH_2CH_2-$, $-CH_2CH(CH_2CH_3)-$), arylene (e.g. 1,4-phenylene) and C_{2-5}-alkylene substituted with aryl (e.g. 1-phenyl ethylene), in particular from C_{2-5}-alkylene such as $-CH_2CH_2-$ and $-CH_2CH(CH_3)-$); p is 0-50; a is 0-2; z is 1-3;

and one or more biocides, wherein the weight ratio between the groups $-R^3-[-R^3-O-]_p-R^2$ in formula (2a) ~~poly(oxyalkylene)~~ and the one or more biocides is in the range 1:0.02 to 1:20, and wherein more than 50 % by weight of the binder system is represented by polysiloxane parts.

12. The coating composition according to any one of the claims 9 and 10, wherein the hydrophilic oligomer/polymer moieties are selected from poly(vinyl pyrrolidone), poly[N-(2-hydroxypropyl)methacrylamide], poly(acrylic acid), poly(glycerol), polyHEMA,

polysaccharides, poly(vinyl alcohol), polyketones, poly(aldehyde guluronate), polyvinylamine, polycaprolactones, poly(vinyl acetate), polyoxyalkylenes like poly(ethylene glycol), poly(propylene glycol), poly(2-methyl-2-oxazoline), including copolymers of the foregoing, in particular poly(oxyalkylenes).

13. The coating composition according to any one of the claims 11, wherein the poly(oxyalkylene) is selected from polyoxyethylene, polyoxypropylene and poly(oxyethylene-co-oxypropylene).

14. The coating composition according to any one of the claims 9-13, wherein at least one biocide is an organic biocide.

15. The coating composition according to any one of the claims 9-14, wherein the weight ratio between the hydrophilic oligomer/polymer moieties and the one or more biocides is in the range 1:0.05 to 1:5.

16. Use of the combination of one or more reactive polysiloxane components modified with hydrophilic oligomer/polymer moieties and one or more biocides, wherein the weight ratio between the hydrophilic oligomer/polymer moieties and the one or more biocides is in the range 1:0.02 to 1:20, for improving the antifouling properties of a polysiloxane based coating composition.