Claims

1. An aqueous primer comprising:

(A) a polysiloxane sol; and

(B) 0.1 to 30 wt% of a water-soluble zinc salt having a solubility in deionised water of at least 0.5 g/L at 25 °C; and

(C) an anticorrosive pigment.

2. An aqueous primer according to claim 1 additionally comprising up to 95 wt% of at least one anticorrosive pigment (C), preferably 15 to 45 wt%.

3. An aqueous primer according to claim 1 or claim 2 wherein the polysiloxane sol is present in an amount of 1.0 to 20 wt% (dry solids).

4. An aqueous primer according to claim 1 to 3 wherein the polysiloxane sol is present in an amount of 10 to 80, preferably 25 to 70 wt% (i.e. combined weight of polysiloxane and water).

5. An aqueous primer composition as claimed in any preceding claim wherein the polysiloxane sol is one that is obtainable by a process comprising:

(i) hydrolysing at least one bisaminofunctional alkoxysilane or epoxyfunctional alkoxysilane;

(ii) reacting the resulting hydrolysed product with itself, at least one optionally hydrolysed alkylalkoxysilane or at least one optionally hydrolysed aminofunctional alkoxypolysiloxane.

6. An aqueous primer according to any preceding claim wherein said water-soluble zinc salt is an organic zinc salt, preferably selected from zinc gluconate, zinc citrate or mixtures thereof.

7. An aqueous primer composition as claimed in any preceding claim free of alkali metal silicate.

8. An aqueous primer composition as claimed in any of claims 1 to 7 wherein the anti-corrosive pigment comprises or consists of zinc.

9. An aqueous primer composition as claimed in any preceding claim comprising an accelerant selected from zinc oxide, zinc phosphate, calcium strontium zinc phosphosilicate, zirconium hydrogen phosphate, iron phosphide, calcium zirconate, barium zirconate, zirconium nitride, zinc titanate, iron (II) titanate, and mixtures thereof.

10. An aqueous primer as claimed in any preceding claim comprising:

(A) a polysiloxane sol;

(B) 0.1 to 30 wt% of a water-soluble zinc salt having a solubility in deionised water of at least 0.5 g/L at 25 °C;

(C) 15 to 90 wt% of at least one anticorrosive pigment; and

(D) 0.5 to 20 wt% of an accelerator selected from zinc oxide, zinc phosphate, calcium strontium zinc phosphosilicate, zirconium hydrogen phosphate, iron phosphide, calcium zirconate, barium zirconate, zirconium nitride, zinc titanate or iron (II) titanate or mixtures thereof.

11. An aqueous primer composition as claimed in any preceding claim comprising zinc oxide and/or titanium dioxide and/or fluorspar and/or microspheres.

12. An aqueous primer composition as claimed in any preceding claim wherein the primer is a shop primer.

13. A kit comprising at least two parts;

a first part (I) comprising component (A) as defined in any one of claims 1 to 12; and

a second part (II) comprising component (C) as defined in any one of claims 1 to 12; and

wherein component (B) as defined in any of claims 1 to 12 is present in at least one of parts (I) or (II), preferably only in one of parts (I) or (II);

preferably wherein component (B) is present in part (II).

14. A process for protecting a substrate from corrosion comprising applying to that substrate a primer as claimed in any one of claims 1 to 12 and allowing said primer to cure on said substrate.

15. A substrate coated with a cured primer as claimed in any one of claims 1 to 12.