Claims:

1. A waterborne, water-resistant, flexible cementitious coating composition comprising:

a) a polymer component comprising:

i) an aqueous styrene-butadiene latex; and

ii) one or more epoxy silane; and

b) an inorganic component comprising:

i) cement; and

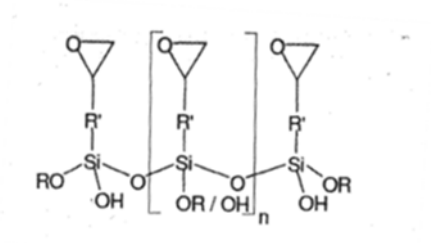
ii) one or more solid filler,

wherein the one or more epoxy silane comprises at least two epoxy functional groups and at least two hydrolysable functional groups selected from the group consisting of siloxy, silane, silanol, and combinations thereof.

2. The composition as claimed in claim 1, wherein the aqueous styrene-butadiene latex comprises a copolymer comprising polymerized units of styrene monomer in an amount of from 15 to 85% by weight of the copolymer based on the total dry weight of the copolymer and polymerized units of butadiene monomer in an amount of from 15 to 85% by weight of the copolymer based on the total dry weight of the copolymer.

3. The composition as claimed in claim 1, wherein the one or more epoxy silane comprises an oligomeric epoxy silane.

4. The composition as claimed in claim 1, wherein the one or more epoxy silane comprises:



wherein R' is $-(CH_2)_x-O-(CH_2)_y-$, wherein x and y are independently selected from 0 to 5; each R is independently selected from a C1 to C6 alkyl group; and n is from 0 to 8.

5. The composition as claimed in claim 1, wherein the cement comprises at least one of portland cement and calcium aluminate cement.

6. The composition as claimed in claim 1, wherein the composition has a polymer component to cement ratio, based on solids, of from 5:1 to 1:5.

7. The composition as claimed in claim 1, wherein the filler is selected from the group consisting of sand, calcium carbonate, silica, TiO_2, ZnO, Barium sulfate, fly ash, fumed silica, metakaolin, and combinations thereof.

8. The composition as claimed in claim 1, further comprising one or more buffer.

9. The composition as claimed in claim 1, further comprising a superplasticizer, wherein the superplasticizer is selected from the group consisting of poly(melamine sulfonate), poly(naphthalene sulfonate), polycarboxylate, salts thereof, derivatives thereof, and combinations thereof.

10. A kit comprising:

an aqueous styrene-butadiene latex;

one or more epoxy silane;

cement; and

one or more solid filler;

wherein the one or more epoxy silane comprises one or more one epoxy functional group and one or more hydrolysable functional groups selected from the group consisting of siloxy, silane, silanol, and combinations thereof, and wherein the aqueous styrene-butadiene latex and the one or more epoxy silane are contained in a first pack.

11. The kit as claimed in claim 10, wherein the cement and one or more solid filler are contained in a second pack.

12. The kit as claimed in claim 10, wherein the pH of the styrene-butadiene latex ranges from 5 to 9.

13. A water-resistant, flexible cementitious coating, layer or membrane comprising:

a styrene-butadiene copolymer;

cement;

one or more solid filler; and

an epoxy silane,

wherein the one or more epoxy silane comprises at least two epoxy functional groups and at least two hydrolysable functional groups selected

from the group consisting of siloxy, silane, silanol, and combinations thereof.

14. The water-resistant, flexible cementitious coating, layer or membrane as claimed in claim 13, further comprising one or more buffer.

15. The water-resistant, flexible cementitious coating, layer or membrane as claimed in claim 13, further comprising a superplasticizer, wherein the superplasticizer is selected from the group consisting of poly(melamine sulfonate), poly(naphthalene sulfonate), polycarboxylate, salts thereof, derivatives thereof, and combinations thereof.