CLAIMS

1. A one pack low temperature (<80°C) moisture crosslinkable copolymer composition, comprising:

an organosilane copolymer derived from at least A_1 and A_2 monomers, wherein~~,~~ the A_1 monomer comprises a vinyl ester monomer and wherein the A_2 monomer comprises a vinyl silane monomer; and

a water scavenger selected from the group consisting of a vinyl silane, an orthoester, a titanate, a zirconate, an oxazolidine, a sulfate, and combinations thereof.

2. The composition of claim 1, wherein the vinyl silane of monomer A_2 comprises vinyl trimethoxy silane or vinyl triethoxy silane.

3. The composition of claim 1, wherein the water scavenger is silane based and ~~—~~the composition comprises a catalyst ~~used is~~ which is a tin based or amine based derivative~~s~~.

4. The composition of claim 1, wherein ~~a —~~the water scavenger is selected from the group consisting of an orthoester and the composition comprises~~catalyst is~~ an acid derivative as catalyst.

5. The composition of claim 1, wherein the water scavenger comprises from 0.1 wt.% to 10 wt.% of the solid polymer composition and the polymer composition comprises 0~~,~~.1 to 15% of ~~the —~~a C1 to C6 alcohol, preferably between 0~~,~~.5 and 10%.

6. The composition of claim 1, wherein the A_1 and A_2 monomers comprises

from about 15 wt.% to about 95% wt.% of A_1 monomer; and

from about 5 wt.% to about 35% wt.% of A_2 monomer, wherein the wt.% is based on the total weight of the at least A_1 and A_2 monomers and the total weight percent of the polymer is 100 wt.%.

7. The composition of claim 1, wherein organosilane resin is further derived from one or more monomers selected from the group consisting of a A_3 monomer comprising vinyl acetate, a A_4 monomer comprising an acrylate ester, a metacrylate ester, or a combination thereof, an A_5 monomer comprising an acrylosilane monomer, a methacrylo silane monomer or a combination thereof, a A_6 monomer comprising any other vinyl monomer, and combinations thereof.

8. The composition of claim ~~5~~7, wherein the at least A_1 and A_2 monomers comprises:

from 10 wt.% to 95% wt.% of A_1 monomer;

from 5 wt.% to 35% wt.% of A_2 monomer;

from 0 wt.% to 75% wt.% of A_3 monomer;

from 0 wt.% to 80% wt.% of A_4 monomer;

from 0 wt.% to 30% wt.% of A_5 monomer; and

from 0 wt.% to 30% wt.% of A_6 monomer, wherein the wt.% is based on the total weight of the monomers, and the total weight percent is 100 wt.%.

9. The composition of claim 1, further comprising one or more materials selected from the group consisting of a solvent, a catalyst, a pigment, a filler, a paint additive, a C1 to C6

alcohol, a polysiloxane polymer, an adhesion promotor, and combinations thereof.

10. The composition of claim ~~7~~9, wherein the composition comprises:

from 5 wt.% to 80 wt.% of the organosilane copolymer—;

from 0.1 wt.% to 10% wt.% of the water scavenger;

from 5 wt.% to 60 wt.% of the solvent;

from 0.05 wt.% to 3.0 wt.% of the catalyst;

from 0 wt.% to 15 wt.% of the C1 to C6 alcohol;

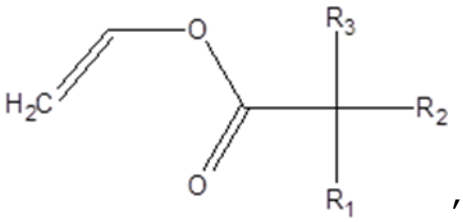
from 0 wt.% to 60% wt.% of the polysiloxane polymer;

from 0 wt.% to 4 wt.% of the adhesion promoter; and

from 0 wt.% to 60 wt.% of paint additives / pigments / fillers, wherein the wt.% is based on the total weight of the composition and the total weight percent is 100 wt.%.

11. The composition of claim 1, wherein vinyl ester monomers (A) are those derived from branched acids with a total number of Carbon atoms of R1, R2, and R3 ranging from 6 to 12.

12. The composition of claim 1, wherein the vinyl ester monomer comprises the formula:



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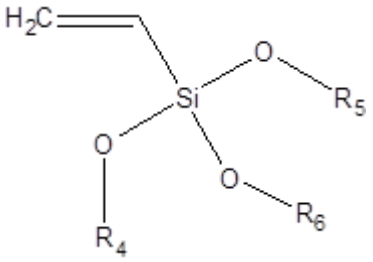
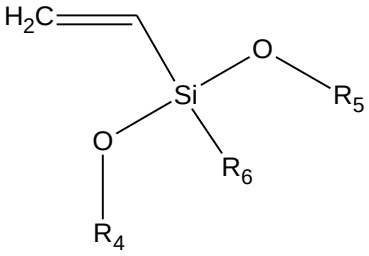
wherein R1, R2, R3 are hydrogen or alkyl groups with 1 to 15 carbon atoms, the total number of carbon atoms of R1, R2, and R3 ranging from 1 to 20; and

wherein the vinyl silane monomer comprises the formula:



OR



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wherein R4, R5 and R6 are alkyl or alkyloxy groups having 1 to 4 carbon atoms.

13. An ambient temperature curing paint composition ~~based on~~comprising the composition of claim 1.

14. An object coated with the composition of claim 1

15. An ambient temperature curing paint composition based on the composition of claim 7.

16. Any object coated with the composition of claim 7.