CLAIMS

THE INVENTION CLAIMED IS

1. A sprayable polymer dispersion composition comprising:

(a) a room temperature vulcanizing (RTV) silicone polymer formulated such that during curing, terminal groups of the RTV silicone polymer include acetoxy, alkoxy, and/or amine groups;

(b) optionally, a polysiloxane different from the RTV silicone polymer;

(c) an insulating agent; and

(d) an organic carrier in which components (a), (b), and (c) are suspended.

2. The dispersion composition of claim 1, wherein the organic carrier (d) comprises a blend of solvents, wherein the solvents are methyl ethyl ketone, methyl amyl ketone, xylene, toluene, mineral spirits, methyl acetate, cyclohexane, dimethyl carbonate, and/or parachlorobenzotrifluoride, ketone, aliphatic hydrocarbon, aromatic hydrocarbon, ester, ether, halogenated hydrocarbon, or combination thereof.

3. The dispersion composition of claim 1, wherein the insulating agent comprises microspheres.

4. The dispersion composition of claim 3, wherein the microspheres comprise a passivation agent.

5. The dispersion composition of claim 1, further comprising, in addition to components (a)-(d), a passivation agent selected from the following: magnesium oxide, zinc phosphate, metal-modified zinc phosphates, metal-modified phosphosilicate and/or metal-modified borosilicate, wherein the metal comprises calcium, barium, strontium, molybdenum, magnesium and/or aluminum.

6. The dispersion composition of claim 1, wherein the polysiloxane is substantially free or completely free of phenyl groups.

7. The ~~dispersion~~ composition of claim 1, wherein the polysiloxane is completely free of phenyl groups.

8. A method of producing a coating on a substrate comprising spraying the ~~dispersion~~ composition of claim 1 onto at least a portion of a substrate and curing of each components (a) and (b) to form a monolithic coating on the substrate.

9. The method of claim 8, wherein the monolithic coating is produced by spraying the ~~dispersion~~ composition in one pass over the substrate to produce a coating that is at least 100 mils thick.

10. The method of claim 8, wherein the monolithic coating is produced by spraying the ~~dispersion~~ composition in one pass over the substrate to produce a coating that is at least 500 mils thick.

11. The method of claim 9, wherein the ~~dispersion~~ composition is sprayed directly onto the substrate with no coating or treatment layer in between the substrate and the ~~dispersion~~ composition.

12. The method of claim 9, wherein the RTV polymer comprises a single component.

13. The method of claim 9, wherein the RTV polymer is produced from a two-part reaction mixture comprising a binder component and a crosslinking component.

14. A coating formed from the polymer ~~dispersion~~ composition of claim 1.

15. The coating of claim 14, wherein the coating is at least partially cured.

16. A substrate at least partially coated with the ~~dispersion~~ composition of claim 1 or a coating formed therefrom.

17. The substrate of claim 16, wherein the ~~dispersion~~ composition is moisture cured as a monolithic coating.

18. The substrate of claim 16, wherein the substrate is metal.

19. An industrial processing component comprising the substrate of claim 16.

20. The industrial processing component of claim 19, wherein the component comprises a reactor, exhaust stack, reformer, distillation column, piping, valve, heat exchanger, boiler or storage tank.