titanium dioxide present in an amount of about 0.2 to 4% by weight based on the weight of said resin system.

3. A composition adapted for filling and sealing pits and fissures in tooth surfaces in accordance with claim **2**, wherein said titanium dioxide has a particle size in the range of about 0.1 to 2 microns and is present in an amount of about 0.5 to 1.5% by weight based on the weight of said resin system.

4. A composition adapted for filling and sealing pits and fissures in tooth surfaces in accordance with claim **1**, wherein said suspending agent comprises silane-treated sub-micron silica present in an amount of about 3 to 6% by weight based on the weight of said resin system.

5. A composition adapted for filling and sealing pits and fissures in tooth surfaces in accordance with claim **1**, wherein said resin system comprises a mixture of Bis-GMA and dimethacrylate monomers.

6. A fluid composition adapted for discernible filling and sealing pits and fissures in tooth surfaces, said composition comprising a polymerizable resin system containing acrylic monomer, finely divided hydrophobic opaquing filler present in an amount of about 0.1 to 5% by weight based on the weight of said resin system, and hydrophobic suspending agent present in an amount of about 1 to 10% by weight based on the weight of said resin system.

7. A fluid composition in accordance with claim **6**, wherein said composition further contains free-radical-generating catalyst.

8. A fluid composition in accordance with claim **6**, wherein said composition further contains accelerator which is reactive with free-radical-generating catalyst.

9. A method for filling and sealing pits and fissures in tooth surfaces comprising the steps of

(a) applying to said tooth surfaces a composition comprising a polymerizable resin system, finely divided hydrophobic opaquing filler present in an amount of about 0.1 to 5% by weight based on the weight of said resin system, and hydrophobic suspending agent present in an amount of about 1 to 10% by weight based on the weight of said resin system, said composition having a viscosity not greater than about 600 centipoise when applied to said tooth surfaces; and

(b) hardening said composition in situ to produce a discernible coating.

10. A method in accordance with claim **9**, wherein said composition is a mixture of two fluid materials, each having a viscosity in the range of about 200 to 600 centipoise, which are mixed together in approximately equal proportions prior to being applied to said tooth surfaces, wherein each of said materials contains polymerizable resin, opaquing filler and suspending agent, and wherein one of said materials further contains free-radical-generating catalyst and the other of said materials further contains accelerator reactive with said catalyst to cause generation of free radicals in sufficient quantity to produce polymerization of said resin system on said tooth surfaces.

11. A method in accordance with claim **10**, wherein said opaquing filler comprises silane-treated titanium dioxide present in each of said fluid materials in an amount of about 0.2 to 4% by weight based on the weight of said resin.

12. A method in accordance with claim **11**, wherein said titanium dioxide has a particle size in the range of about 0.1 to 2 microns and is present in an amount of about 0.5 to 1.5% by weight based on the weight of said resin.

13. A method in accordance with claim **10**, wherein said non-opaque filler comprises silane-treated silica present in an amount of about 3 to 6% by weight based on the weight of said resin.

14. A method in accordance with claim **10**, wherein said polymerizable resin comprises a mixture of Bis-GMA and dimethacrylate monomers.

15. A method in accordance with claim **9**, wherein said composition is in the form of first and second fluid materials which are mixed together prior to being applied to said tooth surfaces, wherein said first fluid material contains polymerizable resin, wherein the said second fluid material contains polymerizable resin, opaquing filler, and suspending agent; and wherein one of said first and second fluid materials further contains free-radical-generating catalyst and the other of said fluid materials contains accelerator reactive with said catalyst to cause generation of free radicals in sufficient quantity to produce polymerization of said system on said tooth surfaces.

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