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(54) Title: PHOTOCURABLE COMPOSITIONS HAVING VARIABLE VISCOSITIES

(57) Abstract: The present disclosure provides photocurable compositions comprising 20-90% by weight of a polymerizable core resin; 20-90% by weight of a diluent resin miscible with said core resin; and at least about 1 % by weight of at least one rheology modifier which is distinct from said diluent resin. Rheology modifiers of the present disclosure include compounds which may form covalent bonds with the core resin or diluent resin and compounds which have a particle size of 1-200 nm. Rheology modifiers which may form covalent bonds have at least one terminal functional group selected from the group consisting of acrylates, methacrylates, epoxides, oxetanes, nitriles, alkenes and alkynes. In a preferred embodiment, tetrahydrofurfuryl methacrylate, methacryl polyhedral oligomeric silsesquioxane (i.e. POSS) cage and PEG POSS cage molecules are employed as the rheology modifiers.



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