[0040]

[4] Component (D)

Component (D) is a photopolymerization initiator which generates organic radical species upon absorption of UV from which polymerization reaction of (meth)acryloyl groups starts. The photopolymerization initiator as component (D) should preferably be free of nitrogen, sulfur and phosphorus so that the addition reaction as the first stage of the curing mechanism may not be inhibited.

Examples of the photopolymerization initiator include 2,2-diethoxyacetophenone, 2,2-dimethoxy-1,2-diphenylethan-1-one (Omnirad 651 by IGM Resins B.V.), 1-hydroxycyclohexyl phenyl ketone (Omnirad 184 by IGM Resins B.V.), 2-hydroxy-2-methyl-1-phenylpropan-1-one (Omnirad 1173 by IGM Resins B.V.), 2-hydroxy-1-{4-[4-(2-hydroxy-2-methylpropionyl)benzyl]phenyl}-2-methylpropan-1-one (Omnirad 127 by IGM Resins B.V.), and methylbenzoylformate (Omnirad MBF by IGM Resins B.V.).

Of these, 2,2-diethoxyacetophenone and 2-hydroxy-2-methyl-1-phenylpropan-1-one (Omnirad 1173 by IGM Resins B.V.) are preferred from the aspect of compatibility between components (A) and (B).

[0041]

Component (D) may be used alone or in admixture of two or more.

The amount of component (D) added is preferably in a range of 0.01 to 20% by weight based on the total weight of components (A), (B) and (C). The range of component (D) ensures satisfactory curability and efficient deep-section cure.

[0042]

[5] Component (E)

Component (E) is a hydrosilation reaction catalyst for promoting addition reaction of alkenyl groups in components (A) and (B) with Si-H groups in component (C).

Exemplary of the catalyst are platinum group metal-based catalysts including platinum-based catalysts such as metallic platinum on carbon powder, platinum black, platinic chloride, chloroplatinic acid, the reaction products of chloroplatinic acid with monohydric alcohols, complexes of platinum with vinylsiloxanes such as divinyltetramethyldisiloxane, complexes of chloroplatinic acid with olefins, and platinum bisacetoacetate, palladium-based catalysts, and rhodium-based catalysts. Of these, platinum-based catalysts are preferred