



In the resultant mixture, a curing catalyst of a vinyltrimethoxysilane-platinic acid complex (a complex of 1 mole of platinic acid with 10 mole of vinyltrimethoxysilane) was mixed so that the weight of the platinum atoms was 100 ppm based on the total weight of the resultant composition, thereby to prepare a composition for an intraocular lens according to the present invention.

The composition prepared above was charged into a mold, which had a cavity having a diameter of 25 mm and a space of 3 mm, and comprised a hollow cylindrical wall of stainless steel and two circular glass plates, and left standing in an atmosphere of dry air at 30° C., thereby to cure the composition. In this case, the change in the curing degree was followed by means of a mechanical spectrometer RMS-700, (mfd. by Rheometrics Corp.), in terms of the change in a shear modulus G (dyne/cm<sup>2</sup>). The results are shown in FIG. 1. As shown in FIG. 1, the composition of this instance was substantially completely cured about 100 min. after the preparation thereof.

Separately, 20 ml of above-mentioned composition of this instance was injected into a glass mold having a cavity which had the shape of a plano-convex lens, a space of 1 mm at the central portion, a spherical portion with a curvature radius of 53.7 mm and a bottom portion with a radius of 20 mm, at an injection rate of 1 ml/10 min. by using an injection needle having an outside diameter of 0.9 mm and a length of 50 mm. Then, the composition was left standing for 100 min. in an atmosphere of 30° C. to cure the composition whereby a plano-convex lens was formed.

The homogeneity in refractive index of the thus formed lens was measured by means of an interferometer using interference fringes of light (Interferometer Mark II, mfd. by Zygo Corporation, USA). The result is shown in the photograph of FIG. 2. As shown in FIG. 2, it was recognized that the composition of this instance had provided a lens excellent in homogeneity.

#### EXAMPLE 2

A composition for an intraocular lens was prepared in the same manner as in Example 1 except that the following polyvinylsiloxane copolymer was used as a polysiloxane (A), and the following hydrogenated polysiloxane copolymer was used as a polysiloxane (B), respectively.

(polysiloxane (A))

viscosity: 2,000 cp (25° C.), number of recurring units: n=480, number of vinylsilane units contained in a polymer molecule: 3, mole ratio of (diphenylsiloxane)/-(dimethylsiloxane)=3/7.

(polysiloxane (B))

viscosity: 1,000 cp (25° C.), number of recurring units: n=360, number of hydrogenated silyl units contained in a polymer molecule: 3.

The curing reaction of the composition prepared above was followed in the same manner as in Example

1. The results are shown in a graph (dotted line) of FIG. 1.

Further, a lens was formed in the same manner as in Example 1 except that the above-mentioned composition of this instance was used. The thus formed lens had a homogeneity in refractive index as shown in the photograph of FIG. 3 measured by means of the Zygo interferometer.

#### COMPARATIVE EXAMPLE 1

A composition for a lens was prepared in the same manner as in Example 1 except that a vinylpolysiloxane having a viscosity of 100,000 cp (n=1330) and containing two vinylsilane units in a polymer molecule was used as a polysiloxane (A). The thus prepared composition was injected into a mold for a lens by using an injection needle having the same outside diameter as that used in Example 1, and cured in the same manner as in Example 1 thereby to obtain a cured product.

FIG. 4 shows a photograph of the thus obtained cured product measured by means of the Zygo interferometer. As shown in FIG. 4, the cured product did not show homogeneity nor optical characteristics as a lens.

#### COMPARATIVE EXAMPLE 2

A composition for a lens was prepared in the same manner as in Example 1 except that a vinylpolysiloxane having a viscosity of 20,000 cp at 25° C. (n=260) and containing two vinylsilane units in a polymer molecule was used as a polysiloxane (A). The thus prepared composition was injected into a mold for a lens and cured in the same manner as in Example 1 thereby to obtain a cured product.

FIG. 5 shows a photograph of the thus obtained cured product measured by means of the zygo interferometer. As shown in FIG. 5, the cured product showed optical characteristics of lens which had been improved as compared with those in FIG. 4 (Comparative Example 1), but were poor as compared with those in FIG. 2 (Example 1) or in FIG. 3 (Example 2).

What is claimed is:

1. An intraocular lens having a shear modulus of  $1 \times 10^3$ - $5 \times 10^6$  dyne/cm<sup>2</sup> and a transmittance of at least 50% with respect to visible radiation of 400-700 nm; said lens comprising a cured product of a composition consisting essentially of:

- (i) an organopolysiloxane (A) having a molecular weight less than or equal to 60,000, a viscosity of 10,000 cp or below at normal temperature and comprising at least one unsaturated aliphatic group in an average polymer molecule;
- (ii) an organopolysiloxane (B) comprising at least three hydrogenated silyl units in an average polymer molecule; and
- (iii) a platinum compound, wherein said platinum compound based on its platinum content constitutes 10-200 ppm by weight of said composition.

2. An intraocular lens according to claim 1, wherein said organopolysiloxane (A) comprises 1-5 unsaturated aliphatic groups in an average polymer molecule.