

RESIN MOLD FOR NANOIMPRINTING

Abstract

Disclosed is a resin mold for nanoimprinting, which has a resin layer having fine depressions and protrusions formed on the surface and is characterized in that the resin layer is formed from 1 to 49 parts by weight of a silicone-based macromonomer and/or a fluorine-based macromonomer and 99 to 51 parts by weight of at least one polymerizable monomer selected from the group consisting of a (meth)acrylic monomer, a styrene-based monomer, an epoxy-based monomer, an olefin-based monomer and a polycarbonate-based resin-forming monomer, the silicone-based macromonomer and/or the fluorine-based macromonomer has a molecular weight of 600 to 10000 and has, at an end of molecule, a reactive group copolymerizable with the polymerizable monomer, and when the reactive group is copolymerized with the polymerizable group, silicone-based units or fluorine-based units that constitute the macromonomer form side chains on a trunk polymer formed from the polymerizable monomer and the macromonomer.

(Fig. 1)