

PHOTOMASK BLANK AND MANUFACTURING METHOD THEREOF

ABSTRACT OF THE DISCLOSURE

An object of this invention is to provide a photomask blank in which there is little warpage and in which an amount of warpage change after a photomask manufacturing process ends is also small. First, a phase shift film is deposited (S101), next, the phase shift film is subjected to a heat treatment within a temperature range of 260°C to 320°C for four hours or more (S102), and thereafter a flash irradiation treatment is performed thereon (S103). A light-shielding film is deposited on the phase shift film after the aforementioned treatments (S104), to thereby obtain a photomask blank (S105).

Fig. 1