

ABSTRACT

There are provided a phase shift mask blank capable of sufficiently suppressing the generation of a haze on a mask, a phase shift mask with few haze defects, and a method for manufacturing the phase shift mask. A phase shift mask blank (10) according to this embodiment is a phase shift mask blank used for producing a phase shift mask to which an exposure light with a wavelength of 200 nm or less is applied, and the phase shift mask blank (10) includes: a substrate (11); and a phase shift film (14) formed on the substrate (11), in which the phase shift film (14) includes a phase layer (12) capable of adjusting each of the phase and the transmittance by a predetermined amount with respect to a transmitting exposure light and a protective layer (13) formed on the phase layer (12) and preventing gas permeation into the phase layer (12), when the film thickness of the phase layer (12) is defined as d_1 and the film thickness of the protective layer (13) is defined as d_2 , the film thickness (d_1) of the phase layer (12) is larger than the film thickness (d_2) of the protective layer (13) and the film thickness (d_2) of the protective layer (13) is 15 nm or less.

FIG.1