

ABSTRACT

There are provided a reflective photomask and a reflective photomask blank having high transfer
5 performance while suppressing the influence of the shadowing effect. A reflective photomask blank (100) according to this embodiment includes: a substrate (11); a reflective part (17) formed on the substrate (11) and configured to reflect an incident light; and a low
10 reflective part (18) formed on the reflective part (17) and configured to absorb an incident light, in which the low reflective part (18) is a multi-layer structural body having at least two or more layers including an absorption layer (14) and a phase shift layer (15), the
15 absorption layer (14) and the phase shift layer (15) are deposited in this order on the reflective part (17), the optical constant to a wavelength of 13.5 nm of a material constituting the absorption layer (14) satisfies an extinction coefficient $k > 0.04$, and the optical constant
20 to the wavelength of 13.5 nm of a material constituting the phase shift layer (15) satisfies a refractive index $n < 0.94$ and the extinction coefficient $k < 0.02$.

FIG. 1