

ABSTRACT

There are provided a reflective photomask blank and a reflective photomask which improve the dimensional accuracy and the shape accuracy of a pattern to be transferred onto a wafer and enable the long use. A reflective photomask blank (10) according to this embodiment includes: a substrate (1); a reflective layer (2); and an absorption layer (4) in this order, in which the absorption layer (4) is a layer containing a material of a first material group and containing a material of a second material group, the content of the material of the first material group decreases from the side of the substrate (1) toward the side of an outermost surface (4a) of the absorption layer (4), and the content of the material of the second material group increases from the side of the substrate (1) toward the side of the outermost surface (4a) of the absorption layer (4). The first material group contains Te, Co, Ni, Pt, Ag, Sn, In, Cu, Zn, and Bi, and oxides, nitrides, and oxynitrides thereof. The second material group contains Ta, Cr, Al, Si, Ru, Mo, Zr, Ti, Zn, In, V, Hf, and Nb, and oxides, nitrides, and oxynitrides thereof.

FIG.1