

ABSTRACT

An object of the present invention is to provide a reflective mask for patterning transfer using light having a wavelength in an extreme ultraviolet region as a light source, the reflective mask including an absorption film having resistance to hydrogen radicals, and to provide a reflective mask blank used for producing the reflective mask and a method for producing a reflective mask using the reflective mask blank. The reflective photomask blank (10) according to the present embodiment includes: a substrate (1); a reflective layer (2) formed on the substrate (1) and configured to reflect EUV light; and an absorption layer (4) formed on the reflective layer (2) and configured to absorb EUV light, in which the absorption layer (4) contains platinum (Pt) in a largest amount among all elements constituting the absorption layer (4) and contains at least one element selected from a first material group other than the platinum (Pt), and the absorption layer (4) has a film density of 9.0 g/cm^3 or more.

Fig. 1