

ABSTRACT

Provided is a reflective mask blank for manufacturing a reflective mask capable of suppressing peeling of an absorber pattern while suppressing an increase in the thickness of an absorber film when EUV exposure is conducted in an atmosphere including hydrogen gas. A reflective mask blank (100) comprises a substrate (1), a multilayer reflection film (2) on the substrate, and an absorber film (4) on the multilayer reflection film. The reflective mask blank (100) is characterized in that: the absorber film (4) includes an absorption layer (42) and a reflectance adjustment layer (44); the absorption layer (42) contains tantalum (Ta), nitrogen (N), and at least one added element selected from hydrogen (H) and deuterium (D); the absorption layer (42) includes a lower surface region (46) including a surface on the substrate side, and an upper surface region (48) including a surface on the side opposite to the substrate; and the concentration (at.%) of the added element in the lower surface region (46) and the concentration (at.%) of the added element in the upper surface region (48) are different.