

ABSTRACT

TITLE OF INVENTION: REFLECTIVE MASK BLANK AND METHOD FOR
MANUFACTURING THE SAME

A reflective mask blank includes at least: a substrate; a multilayer reflective film provided on the substrate and reflecting exposure light; and an absorber film provided on the multilayer reflective film and absorbing the exposure light; wherein the reflective mask blank comprises a reference mark serving as a reference position for detecting a defect position and formed on a surface of the reflective mask blank on a same side as the multilayer reflective film; and the reference mark has at least two pairs of parallel line segments, each pair consisting of two parallel line segments in a concave or convex shape, and the directions of the two pairs of parallel line segments are in a position perpendicular to each other. This makes it possible to produce a reference mark at a relatively low cost with high throughput to improve accuracy of the position detection achieved by a detector.

FIG. 1