

ABSTRACT

Provided is a mask blank 10 formed by stacking a phase shift film 2 made of a material consisting of silicon and nitrogen, a light shielding film 3, and a hard mask film 4 on a light transmissive substrate 1, said mask blank being configured such that when analyzing the phase shift film with secondary ion mass spectrometry and acquiring the secondary ion intensity distribution of silicon toward the depth of the phase shift film, the slope of the secondary ion strength [counts/sec] of the silicon is less than $150 \text{ [(counts/sec)/nm]}$ relative to a depth [nm] in a direction toward the light transmissive substrate in the inner region of the phase shift film excluding the region near the substrate and the surface region.