

ABSTRACT

PERPENDICULAR MAGNETIC RECORDING MEDIUM

Provided is a perpendicular magnetic recording medium that exhibits improved thermal stability and achieves reduction in switching magnetic field by providing a cap layer having characteristics (characteristics contributing to reducing switching magnetic field of the perpendicular magnetic recording medium as well as to improving thermal stability thereof) superior to existing cap layers.

A perpendicular magnetic recording layer (24) has a granular structure which comprises Co-Pt-alloy magnetic crystal grains (24A) and a non-magnetic grain boundary oxide (24B). A cap layer (26) has a granular structure which comprises Co-Pt-alloy magnetic crystal grains (26A) and a magnetic grain boundary oxide (26B). The Co-Pt-alloy magnetic crystal grains (26A) in the cap layer (26) contain 65-90 at% of Co and 10-35 at% of Pt. The magnetic grain boundary oxide (26B) is included in a volume fraction of 5-40 vol% with respect to the total volume of the cap layer (26).

[Figure 2]