

Abstract

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An object is to provide an alloy composition that has a sufficient melting point for casting of an aluminum alloy, also has high hardness, and can suppress an occurrence of galling. The alloy composition of the present invention includes: a Mo-Cr-based dendritic structure 3; and a Ni-Al-based interdendritic structure 5 that fills a periphery of the Mo-Cr-based dendritic structure 3. The alloy composition of the present invention can adopt a chemical composition I in which when $\text{Mo} + \text{Cr} + \text{Ni} + \text{Al} = 100 \text{ at.}\%$ holds, $\text{Ni} + \text{Al} = 15 \text{ to } 50 \text{ at.}\%$ and $\text{Mo} + \text{Cr} = 50 \text{ to } 85 \text{ at.}\%$ hold; or a chemical composition II in which $\text{Ni} + \text{Al} = 40 \text{ to } 70 \text{ at.}\%$ and $\text{Mo} + \text{Cr} = 30 \text{ to } 60 \text{ at.}\%$ hold.