plated with gold and is heated in an oxidative atmosphere to cover pinholes with an oxide film.

Citation List

Patent Literature

[0008]

Patent Literature 1: JP 2954716 B2

Patent Literature 2: JP 3094000 B2

Patent Literature 3: JP 2004-360066 A

Patent Literature 4: JP 2008-260646 A

Summary of Invention

[0008a]

In an aspect of the present disclosure, there is provided a laminate comprising a metallic base material, a nickel-containing plating film layer formed on the metallic base material, and a gold plating film layer formed on the nickel-containing plating film layer,

wherein pinholes in the gold plating film layer are sealed with a passive film having a thickness of 15 nm or greater.

[0008b]

In another aspect of the present disclosure, there is provided a constituent member of a semiconductor production device, made up of the laminate disclosed herein.

[0008c]

In a further aspect of the present disclosure, there is provided a method for producing a laminate, comprising

a step (A) of forming a nickel-containing plating film layer on a metallic base material,

a step (B) of forming a gold plating film layer on the nickel-containing plating film layer, and

a sealing treatment step (C) of forming a passive film having a thickness of 15 nm or greater on pinholes in the gold plating film layer.

Technical Problem

[0009]

As a result of a study by the present inventors, the methods of forming a fluorinated passive film of nickel on a nickel-phosphorus alloy plating surface as disclosed in Patent Literature 1 to Patent Literature 3 were found to involve insufficiency of steam corrosion resistance in some cases. With respect to the method disclosed in Patent Literature 4, an oxide film thereby formed may easily disappear depending on the environment due to the ultra-thin film thickness thereof. For this reason, the member as such involves a problem of difficult application as a practical