material is plated with a nickel-tungsten alloy and a thick fluorinated passive film of nickel is formed at a low temperature by utilizing the standard enthalpy of formation of WF_6 formed by a fluorination reaction. However, the method, which is electroplating, has a restriction such that members to which the method is applicable are limited (see Patent Literature 4).

Citation List

Patent Literature

[0007]

Patent Literature 1: JP 2954716 B2

Patent Literature 2: JP 3094000 B2

Patent Literature 3: JP 2004-360066 A

Patent Literature 4: JP 2008-056978 A

Summary

[0007a]

In a first aspect, the present disclosure refers to 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 fluorinated passive film having a thickness of 8 nm or greater.

[0007b]

In another aspect, the present disclosure refers to a constituent member of a semiconductor production device, made up of the laminate as disclosed herein.

[0007c]

In a further aspect, the present disclosure refers to 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 fluorinated passive film having a thickness of 8 nm or greater in pinholes in the gold plating film layer.

Technical Problem

[0008]

What is intended by the present invention is to resolve the above problems associated with conventional art. The objects of the present invention are to provide a metallic material which can be employed as a constituent member of a semiconductor production device and also excels in corrosion