

SURFACE-TREATED ALUMINUM MATERIAL, METHOD OF MANUFACTURING THE SAME, AND COMPRESSOR WHEEL

ABSTRACT

A surface-treated aluminum material (1) comprises: a base material (2), which is composed of an aluminum alloy in which the Cu content is more than 1.8 mass% and 6.8 mass% or less; and a protective film (3), which is formed on the base material. The protective film (3) comprises: an oxide layer (31), which is composed of an oxide or oxides of aluminum and covers the base material (2); and a hydrated oxide layer (32), which contains a hydrated oxide or hydrated oxides of aluminum and covers the oxide layer (31). In the situation in which cathodic polarization measurements are performed, using a prescribed measurement solution, on the base material (2) and on the surface-treated aluminum material (1) after it had been heated for 4 hours at a temperature of 200°C, the ratio $J1/J2$ of the current density $J1$ of the surface-treated aluminum material (1) to the current density $J2$ of the base material (2) is 7000×10^{-5} or less.

[Fig. 1]