

SURFACE-TREATED ALUMINUM MATERIAL, METHOD OF MANUFACTURING
THE SAME, METAL CASING, AND KITCHEN APPLIANCE

ABSTRACT

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A surface-treated aluminum material (1) comprises: a base material (2), which is composed of aluminum or an aluminum alloy; 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
10 layer (32), which covers the oxide layer (31). The hydrated oxide layer (32) contains a hydrated oxide or hydrated oxides of aluminum and an oxide or oxides and/or a hydroxide or hydroxides of a prescribed metal element or metal elements. In the situation in which cathodic polarization measurements have been performed, using a prescribed measurement solution, on the base material (2) and on the surface-treated aluminum material (1) after it had
15 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) at a prescribed potential is 90×10^{-5} or less.

[Fig. 1]