

Abstract

LITHIUM-ION SECONDARY-BATTERY CASE AND MANUFACTURING METHOD
THEREFOR

A lithium-ion secondary-battery case that allows bonding without weld spatter and has high strength against external force acting on the battery case, and a method for manufacturing the lithium-ion secondary-battery case are provided. Specifically, an austenitic stainless steel foil is used for a cup component (2), and a two-phase stainless steel having an austenite transformation start temperature A_{C1} in a temperature increase process at 650°C to 950°C and an austenite and ferrite two-phase temperature range of 880°C and higher, is used for a cover component (3), and the diffusion bonding is proceeded while accompanied by grain boundary movement upon transformation of the two-phase steel from a ferrite phase into an austenite phase within a heating temperature range of 880°C to 1080°C.

Fig. 1