

ABSTRACT

Ni-plated steel sheet and method of manufacturing battery can using the Ni-plated steel sheet

A Ni-plated steel sheet is provided in which the occurrence of scratches at the time of forming a battery can be suppressed. Also provided is a method which includes a step where a surface of a steel sheet is plated with Ni in a Ni adhesion amount of 0.3-2 μm , a step where the Ni-plated steel sheet is heated to 600-800°C to form an Fe-Ni diffusion layer as an outermost surface layer, and a step where the steel sheet is rolled by temper rolling so as to adjust the Fe-Ni diffusion layer so that the steel sheet has the surface roughness R_a of 0.9-2.0 μm and the surface roughness R_y of 4.0-15 μm . A Ni-plated steel sheet which includes an Fe-Ni diffusion layer as an outermost surface layer and in which the diffusion layer has the surface roughness R_a of 0.9-2.0 μm and the surface roughness R_y of 4.0-15 μm and the diffusion layer has such an Fe/Ni ratio that the Fe accounts for 20-50% in Auger analysis is subjected to drawing using a water-soluble liquid which contains water-soluble emulsion as a press lubricant.

Fig. 1