

[Abstract]

[Title of the Invention]

Zn-Al-Mg-BASED HOT-DIP PLATED STEEL SHEET

A Zn-Al-Mg-based hot-dip plated steel sheet includes, as a metallographic
5 structure, [Al phase] and [ternary eutectic structure of Al/Zn/MgZn₂], a hot-dip plating
layer includes a first region and a second region that satisfy any one of the following (a)
or (b), and the first region or the second region is disposed so as to form a predetermined
shape.

(a) The first region is a region where the average length of the [Al phase] on the
10 surface of the hot-dip plating layer is 200 μm or longer, and the second region is a region
where the average length of the [Al phase] on the surface of the hot-dip plating layer is
shorter than 200 μm.

(b) The first region is a region where, in the interface between the steel sheet and
the hot-dip plating layer, the length L_e of the [ternary eutectic structure of Al/Zn/MgZn₂]
15 facing the steel sheet is more than 0.3 of the length L of the interface, and the second
region is a region where, in the interface between the steel sheet and the hot-dip plating
layer, the length L_e of the [ternary eutectic structure of Al/Zn/MgZn₂] facing the steel
sheet is 0.3 or less of the length L of the interface.

20 FIG. 4