

Abstract

SURFACE TREATMENT LIQUID FOR ZINC OR ZINC ALLOY PLATED STEEL SHEET, ZINC OR ZINC ALLOY PLATED STEEL SHEET, AND METHOD OF PRODUCING THE STEEL SHEET

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According to the present invention, a zinc or zinc alloy plated steel sheet which is excellent in not only appearance after press molding and corrosion resistance but also oil-retaining properties in a high-temperature environment or a high-temperature and
10 high-humidity environment can be obtained by forming on the steel sheet a film having a coating quantity in terms of zirconium content per one surface in the range of 10 to 200 mg/m² by: coating the steel sheet with a surface treatment liquid containing (A) a water-soluble zirconium compound, (B) a water-dispersible silica fine particles, (C) a silane coupling agent, (D) a vanadic acid compound, (E) a phosphoric acid compound, (F) a
15 nickel compound, (G) an acrylic resin emulsion, and (H) an organopolysiloxane compound at specifically adjusted ratios, respectively; and then drying the steel sheet thus coated by heating.

No figure