

Abstract

SURFACE TREATMENT AGENT FOR ZINC OR ZINC ALLOY COATED
STEEL SHEET, ZINC OR ZINC ALLOY COATED STEEL SHEET,
AND METHOD OF PRODUCING THE STEEL SHEET

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The present invention provides a chromium-free surface treatment agent, comprising: a resin compound having a specific bisphenol skeleton; cationic urethane resin emulsion; silane coupling agent; an organic titanium chelate compound; a quadrivalent vanadyl compound; a molybdic acid compound; and water, wherein these components are
10 blended at predetermined ratios such that pH value of the surface treatment agent is in the range of 4 to 5. The one-pack type chromium-free surface treatment agent of the present invention exhibits good stability during storage and is capable of forming on a metal material surface a coating film excellent in corrosion resistance at a bending-processed portion of a steel sheet, solvent resistance and paintability after alkali
15 degreasing.

No figure