

Title (en)
METHOD FOR REFINING A METALLIC COATING ON A STEEL STRIP

Title (de)
VERFAHREN ZUM VEREDELN EINER METALLISCHEN BESCHICHTUNG AUF EINEM STAHLBAND

Title (fr)
PROCÉDÉ D'AFFINEMENT D'UN REVÊTEMENT MÉTALLIQUE SUR UNE BANDE D'ACIER

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Abstract (en)
[origin: CA2827617A1] The invention relates to a method for enhancing a metallic coating on a steel strip or steel plate, the coating being melted by heating to a temperature above the melting temperature of the material of the coating, the heating taking place by irradiation of the surface of the coating with electromagnetic radiation having a high power density over a limited irradiation time of not more than 10 µs, and the mandated irradiation time and the energy density introduced into the coating by the electromagnetic radiation being selected such that the coating melts completely over its entire thickness down to the boundary layer with the steel strip, thereby forming a thin alloy layer at the boundary layer between the coating and the steel strip. The invention further relates to a steel strip or steel plate having a metallic coating, more particularly a coating of tin, zinc or nickel, in which, at the boundary layer between the steel and the coating, an alloy layer which is thin - compared with the thickness of the coating - and at the same time is dense, and is composed of iron atoms and atoms of the coating material, is formed, the thickness of the alloy layer corresponding to an alloy-layer add-on of less than 0.3 g/m².

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