

Title (en)

SIMPLIFIED METHOD FOR PRETREATING METAL SUBSTRATES FOR COLD FORMING AND REACTIVE LUBRICANT THEREFOR

Title (de)

VEREINFACHTES VERFAHREN ZUR VORBEHANDLUNG VON METALLISCHEN SUBSTRATEN FÜR DIE KALTUMFORMUNG UND REAKTIVER SCHMIERSTOFF HIERZU

Title (fr)

PROCÉDÉ SIMPLIFIÉ DE TRAITEMENT PRÉALABLE DE SUBSTRATS MÉTALLIQUES POUR LA DÉFORMATION À FROID ET LUBRIFIANT RÉACTIF APPROPRIÉ

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Application

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Abstract (en)

[origin: WO2020165035A1] The present invention relates to a simplified method for pretreating metal substrates for cold forming, in which method a metal substrate is successively 1) preferably cleaned and then rinsed, 2) preferably pickled and then rinsed, 3) brought into contact with a water-based, acidic, reactive lubricant, which contains a) oxalic acid, b) at least one accelerator, which comprises nitroguanidine and/or at least one iron(III) source, and c) at least one film former, at least one wax and/or at least one emulsified lubrication oil, and 4) optionally dried, wherein the at least one film former is selected from the group consisting of homopolymers and copolymers of ethylene, propylene, styrene, (meth)acrylic acid, (meth)acrylate, vinyl amine, vinyl formamide, vinyl pyrrolidone, vinyl caprolactam, vinyl acetate, vinyl imidazole and/or epoxy and salts thereof and polyurethanes, polyamides, polyethylene imines, polyamines and salts thereof, wherein the at least one wax is selected from the group consisting of non-ionic waxes and cationic stabilized waxes, and wherein the at least one emulsified lubrication oil is selected from the group consisting of synthetic oils, mineral oils, vegetable oils and animal oils, to a corresponding reactive lubricant and to a metal substrate pretreated by the method and use thereof.

IPC 8 full level

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