

Title (en)

ONE-STEP PRETREATMENT METHOD OF METALLIC SUBSTRATES AT NON-NEUTRAL PH VALUES FOR METAL COLD FORMING

Title (de)

EINSTUFIGES VORBEHANDLUNGSVERFAHREN VON METALLISCHEN SUBSTRATEN BEI NICHTNEUTRALEN PH-WERTEN FÜR DIE METALLKALTUMFORMUNG

Title (fr)

PROCÉDÉ DE PRÉTRAITEMENT EN UNE ÉTAPE DE SUBSTRATS MÉTALLIQUES À DES VALEURS DE PH NON NEUTRES POUR LA FORMAGE À FROID DE MÉTAL

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Application

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Abstract (en)

[origin: WO202207901A1] The present invention relates to a method of pretreatment of a metallic substrate for a subsequent metal cold forming process, said method comprising at least steps (1) and (2), namely providing at least one substrate having at least one surface at least partially made of at least one metal (step (1)), contacting the at least one surface of the substrate provided in step (1) with an aqueous lubricant composition (B) (step (2)), wherein the aqueous lubricant composition (B) comprises besides water at least constituents (b1) to (b4) and optionally (b5), namely as (b1) at least one homopolymer and/or copolymer being prepared by polymerization of at least vinyl pyrrolidone as at least one monomer, wherein (b1) has a polydispersity index (PDI) in a range of from 1.5 to 8.0, as (b2) at least one wax, as (b3) at least one defoamer, and as (b4) (i) oxalate anions and/or phosphate anions or (ii) calcium cations, chloride anions and hydroxide anions, as well as optionally Fe(III) ions as (b5), wherein (b5) is present in case at least oxalate anions are present as (b4), a pretreated metallic substrate obtainable by the inventive method, a method of cold forming of a metallic substrate and an aqueous lubricant composition (B) as defined above.

IPC 8 full level

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