

Title (en)  
METHOD FOR PREPARING METALLIC WORKPIECES FOR COLD FORMING

Title (de)  
VERFAHREN ZUR VORBEREITUNG VON METALLISCHEN WERKSTÜCKEN ZUM KALTUMFORMEN

Title (fr)  
PROCÉDÉ DE PRÉPARATION DE PIÈCES MÉTALLIQUES POUR LE FORMAGE À FROID

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Abstract (en)  
[origin: WO2006122651A1] The invention relates to a method for preparing metallic workpieces for cold forming by contacting the metallic surfaces thereof with an aqueous acid phosphating solution so as to embody at least one phosphate coating and then coating the phosphate-coated surfaces with at least one lubricant in order to embody at least one lubricant layer. According to the inventive method, the phosphating solution essentially contains only calcium, magnesium, or/and manganese as cations that are selected among cations of main group 2 and subgroups 1, 2, and 5 to 8 of the periodic table of chemical elements in addition to phosphate. Furthermore, an alkaline earth metal-containing phosphating solution is free from fluoride and complex fluoride while the phosphating process is carried out electrolytically. The invention further relates to a metallic workpiece that is coated accordingly as well as the use of workpieces coated in said manner.

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