Title (en)

PROCESS FOR PRODUCING PHOSPHATE COATINGS ON METALS

Publication

EP 0269138 B1 19901128 (DE)

Application

EP 87201890 A 19871003

Priority

DE 3636390 A 19861025

Abstract (en)

[origin: US4824490A] Disclosed is a process of producing a phosphate coating on a metal having a surface which consists at least in part of iron or steel. The metal is contacted at a temperature in the range from 30 DEG to 50 DEG C. with a phosphatizing solution which contains 5 to 25 g/l zinc, 1 to 10 g/l manganese, 0.1 to 13 g/l iron(II), 5 to 40 g/l phosphate (calculated as P2O5), 5 to 50 g/l nitrate, and which also contains 0.5 to 5 g/l fluoroborate (calculated as BF4), and 0.05 to 3 g/l tartaric acid and/or citric acid. The solution has been adjusted to weight ratios of Zn:P2O5=(0.5 to 3):1 and of Mn:Zn=(0.04 to 0.5):1 and to a ratio of free acid to total acid of (0.04 to 0.2):1. It is preferred to add nickel, copper and/or calcium to the phosphatizing solution and to adjust it to a content of Fe(II) not in excess of 10 g/l. The process is particularly suitable for preparing metals for cold working.

IPC 1-7

C23C 22/36

IPC 8 full level

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CPC (source: EP US)

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Cited by

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