Title (en)

ALKALINE RESISTANT PHOSPHATE CONVERSION COATINGS AND METHOD OF MAKING

Publication

EP 0112826 B1 19881228 (EN)

Application

EP 82902566 A 19820712

Priority

US 8200949 W 19820712

Abstract (en)

[origin: WO8400386A1] A method for increasing the resistance to alkaline dissolution of a phosphate conversion coating on a corrodible metal substrate. The substrate is exposed to the phosphating solution by spraying or dipping to chemically effect a reaction with the substrate. The solution contains 84-94 molar percent of the total metal cations of a first layer-forming divalent metal cation, the metal cation having a hydroxide which has a lower solubility in an alkaline solution than iron or zinc hydroxide and is preferably selected from the group consisting of nickel, cobalt, magnesium and lanthanides, and a second layer-forming metal cation in the form of zinc present in an amount of .2-.6 g/l as a Zn<+2>. The molar ratio range of the first and second metal cations is in the range of 5.2:1 to 16:1, and the first metal cation is present in the solution in an amount of at least 1.0 g/l. The deposited coating has a first divalent metal cation present in an amount of at least 15 mole percent of the total divalent cations, and a second divalent cation present in an amount of at least 25 % by weight of the coating; the coating preferably has a uniform weight of less than 1.3 g/m<2> (120 mg/ft<2>).

IPC 1-7

C23C 22/12; C23C 22/36

IPC 8 full level

C23C 22/18 (2006.01); **C23C 22/07** (2006.01); **C23C 22/12** (2006.01); **C23C 22/22** (2006.01); **C23C 22/36** (2006.01)

CPC (source: EP)

C23C 22/12 (2013.01); **C23C 22/362** (2013.01)

Designated contracting state (EPC)

BE CH DE FR GB LI LU NL SE

DOCDB simple family (publication)

WO 8400386 A1 19840202; AU 569697 B2 19880218; AU 8826782 A 19840208; BR 8208086 A 19840717; DE 3279307 D1 19890202; DK 104684 A 19840312; DK 104684 D0 19840227; EP 0112826 A1 19840711; EP 0112826 A4 19841107; EP 0112826 B1 19881228; JP H0419307 B2 19920330; JP S59501269 A 19840719; NO 840917 L 19840309

DOCDB simple family (application)

US 8200949 W 19820712; AU 8826782 A 19820712; BR 8208086 A 19820712; DE 3279307 T 19820712; DK 104684 A 19840227; EP 82902566 A 19820712; JP 50260682 A 19820712; NO 840917 A 19840309