Title (en)

ELECTROLYTIC CODEPOSITION OF ZINC AND GRAPHITE AND RESULTING PRODUCT

Publication

EP 0127620 B1 19870923 (EN)

Application

EP 83900525 A 19821201

Priority

US 8201689 W 19821201

Abstract (en)

[origin: WO8402149A1] A high lubricity codeposit of zinc and graphite, and an improved method for depositing the codeposit. The coating is characterized by a coefficient of friction equal to or less than .130, and a high resistance to corrosion evidenced by no red rust in a salt spray environment for 72 hours and no destruction due to corrosion in an industrial environment, containing sulphur dioxide, for four months. When the codeposit additionally has a chromate outer coating, the system has a coefficient of friction equal to or less than .112 and has no red rust in a salt spray environment for at least 120 hours. The codeposit is applied by immersing a cleansed metallic substrate in an acidic zinc plating electrolyte containing at least 40 g/l zinc ions and 30-110 g/l insoluble bulk graphite, with a pH of 5-5.7. The cell of which the electrolyte is a part is energized to plate out a codeposit; the graphite is continuously agitated while in solution, the agitation being periodically interrupted to allow the graphite to settle and saturate the zinc interface as it is plating out.

IPC 1-7

C25D 5/48; C25D 7/00; C25D 15/00

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