

Title (en)  
PROCESS FOR TREATING ZINCIFEROUS SURFACES

Title (de)  
VERFAHREN ZUR BEHANDLUNG ZINKHALTIGER OBERFLÄCHEN

Title (fr)  
PROCEDE POUR TRAITER DES SURFACES ZINCIFERES

Publication  
**EP 0724488 A4 19970108 (EN)**

Application  
**EP 94927906 A 19940811**

Priority  
• JP 22222993 A 19930814  
• US 9408318 W 19940811

Abstract (en)  
[origin: WO9505247A1] A solid 10-200 mg/m<2>, calculated as chromium metal, film is formed on a zinciferous surface by coating the surface with an acidic aqueous liquid composition that contains hexavalent chromium ions, trivalent chromium ions, at least one of sulfate ions and nitrate ions, and zinc, nickel, cobalt, and/or aluminum ions, in which liquid composition the trivalent chromium ion/hexavalent chromium ion molar ratio is 1/9 to 4/1, the (nitrate + sulfate + phosphate)/(hexavalent chromium ion + trivalent chromium ion) molar ratio is 0.1 to 2.0 and the metal ion/inorganic acid molar ratio is 0.05 to 1, and subsequently drying the applied coating. The chromate film formed has both an excellent resistance to blackening and an excellent resistance to white rust.

IPC 1-7  
**B05D 1/18**; **B05D 3/02**; **C04B 9/02**; **C23C 22/33**; **C23C 28/00**

IPC 8 full level  
**C23C 2/06** (2006.01); **C04B 28/34** (2006.01); **C23C 2/26** (2006.01); **C23C 22/30** (2006.01); **C23C 22/33** (2006.01); **C23C 28/00** (2006.01); **C25D 5/48** (2006.01)

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Citation (search report)  
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• [X] WO 9203593 A1 19920305 - NIHON PARKERIZING [JP] & PATENT ABSTRACTS OF JAPAN vol. 016, no. 351 (C - 0968) 29 July 1992 (1992-07-29)  
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• [A] SAITO K ET AL: "CHROMATING OF STEEL STRIP FOR CORROSION RESISTANCE AND PAINTABILITY", CHEMICAL ABSTRACTS + INDEXES, vol. 110, no. 2, January 1989 (1989-01-01), pages 221, XP000017335  
• See references of WO 9505247A1

Designated contracting state (EPC)  
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**WO 9505247 A1 19950223**; AU 7714194 A 19950314; CA 2169193 A1 19950223; CN 1102442 A 19950510; EP 0724488 A1 19960807; EP 0724488 A4 19970108; JP 3288152 B2 20020604; JP H0754156 A 19950228; KR 100311062 B1 20011215; KR 950006022 A 19950320; TW 247321 B 19950511; ZA 946049 B 19950629

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**US 9408318 W 19940811**; AU 7714194 A 19940811; CA 2169193 A 19940811; CN 94109436 A 19940813; EP 94927906 A 19940811; JP 22222993 A 19930814; KR 19940020005 A 19940813; TW 83107191 A 19940805; ZA 946049 A 19940811