

Title (en)
Metallic coatings consisting of amorphous wear- and corrosion resistant alloys, process for obtaining these alloys and use as wear resistant coatings of hydraulic material

Title (de)
Metallische Schichten, welche aus amorphen verschleiss- und korrosionsfesten Legierungen bestehen, Verfahren zu deren Herstellung und Anwendung für verschleissfeste Überzügen von hydraulischen Materialien

Title (fr)
Revêtements métalliques à base d'alliages amorphes résistant à l'usure et à la corrosion, procédé d'obtention et applications aux revêtements anti-usure pour matériel hydraulique

Publication
EP 0576366 B1 19960327 (FR)

Application
EP 93420202 A 19930518

Priority
FR 9206535 A 19920522

Abstract (en)
[origin: US5376191A] The finishes of the present invention consist essentially of metal alloys having the general formula: TaCr_bZr_cBdMeM'_fXg_hl_i in which a+b+c+d+e+f+g+h=100 atomic percent; T is Ni, Co, Ni-Co or any combination of at least one of Ni and Co with Fe, wherein 3<Fe<82 at. % and 3<a<85 at. %; M is one or more elements of the group consisting of Mn, Cu, V, Ti, Mo, Ru, Hf, Ta, W, Nb, Rh, wherein 0<e<12 at. %; M' is one or more rare earths, including Y, wherein 0<f<4 at. %; X is one or more metalloids of the group consisting of C, P, Ge and Si, wherein 0<g<17 at. %; l represents inevitable impurities, wherein h<1 at. %, and 5<=b<=25, 5<=c<=15, and 5<=d<=18. Powders obtained from these alloys that are deposited on substrates by thermal projection provide finishes having increased hardness in addition to high ductility and excellent resistance to corrosion. The finishes are suited for applications including hydraulic equipment.

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IPC 8 full level
C22C 45/00 (2006.01); **C23C 4/08** (2006.01); **C23C 30/00** (2006.01)

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C22C 45/008 (2013.01 - EP US); **C23C 4/073** (2016.01 - EP US); **C23C 4/08** (2013.01 - KR); **C23C 30/00** (2013.01 - EP US)

Citation (examination)
• US 4863526 A 19890905 - MIYAGAWA YUKIO [JP], et al
• Derwent Publications Ltd., London, GB; AN 89-034567 & JP-A-63306508

Cited by
EP0748879A1; EP3175017A4; US6773817B1; US10676806B2; WO0037713A1; US8075712B2; US8778460B2

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US 5376191 A 19941227; AT E136062 T1 19960415; AU 3867293 A 19931125; AU 664265 B2 19951109; BR 9301937 A 19931130; CA 2096682 A1 19931123; CN 1049457 C 20000216; CN 1088630 A 19940629; DE 69301965 D1 19960502; DE 69301965 T2 19960912; DK 0576366 T3 19960729; EP 0576366 A1 19931229; EP 0576366 B1 19960327; ES 2085132 T3 19960516; FI 100891 B 19980313; FI 932289 A0 19930519; FI 932289 A 19931123; FR 2691477 A1 19931126; FR 2691477 B1 19940826; FR 2691478 A1 19931126; FR 2691478 B1 19950217; GR 3019445 T3 19960630; JP H0688175 A 19940329; KR 100271996 B1 20001201; KR 930023483 A 19931218; MX 9302977 A 19940228; NO 300553 B1 19970616; NO 931800 D0 19930518; NO 931800 L 19931123; US 5421919 A 19950606; ZA 933517 B 19931210

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US 6098593 A 19930514; AT 93420202 T 19930518; AU 3867293 A 19930518; BR 9301937 A 19930519; CA 2096682 A 19930520; CN 93106300 A 19930522; DE 69301965 T 19930518; DK 93420202 T 19930518; EP 93420202 A 19930518; ES 93420202 T 19930518; FI 932289 A 19930519; FR 9206535 A 19920522; FR 9302187 A 19930218; GR 960400643 T 19960328; JP 12017093 A 19930521; KR 930008925 A 19930522; MX 9302977 A 19930521; NO 931800 A 19930518; US 25194794 A 19940601; ZA 933517 A 19930519