

Title (en)

CHROME-FREE COATING FOR SUBSTRATE

Title (de)

CHROMFREIE BESCHICHTUNG FÜR EIN SUBSTRAT

Title (fr)

REVÊTEMENT SANS CHROME POUR UN SUBSTRAT

Publication

**EP 2414106 A4 20140514 (EN)**

Application

**EP 10756469 A 20100324**

Priority

- US 2010000858 W 20100324
- US 21090309 P 20090324

Abstract (en)

[origin: WO2010110873A1] A chrome-free mixture or alloy, preferably a composite wire is disclosed for producing a wear resistant and corrosion resistant coating on a substrate, for example by thermal spraying techniques. The physical properties of the coating are particularly suited for high-temperature erosion-corrosion environments. The resultant coating exhibits good hardness, toughness, and bonding characteristics. The composite wire comprises a metallic outer sheath and an inner core and produces a chrome-free coating comprising, in bulk on a weight basis, 60 to 90% of a base metal including at least 2% aluminum and/or silicon, 2 to 10% titanium, 2 to 10% silicon, and 2 to 10% boron.

IPC 8 full level

**C23C 4/06** (2006.01); **C23C 4/12** (2006.01); **C23C 4/16** (2006.01); **C23C 30/00** (2006.01)

CPC (source: EP)

**C23C 4/06** (2013.01); **C23C 4/067** (2016.01); **C23C 4/12** (2013.01); **C23C 4/131** (2016.01); **C23C 30/00** (2013.01)

Citation (search report)

- [A] CH 311869 A 19551215 - DEUTSCHE EDELSTAHLWERKE AG [DE]
- [A] DE 10259141 A1 20040708 - CORODUR VERSCHLEISS SCHUTZ GMB [DE]
- [A] DE 4328732 C1 19950216 - CASTOLIN SA [CH]
- [A] GB 2250030 A 19920527 - CASTOLIN SA [CH]
- [A] US 2009032501 A1 20090205 - SWINGLEY THOMAS [US], et al
- [A] US 2008098926 A1 20080501 - SEITZ MICHAEL [US]
- [A] US 2006078749 A1 20060413 - GRAU STEFAN [DE], et al
- See references of WO 2010110873A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

**WO 2010110873 A1 20100930**; AU 2010229319 A1 20111013; AU 2010229319 B2 20150917; CA 2756033 A1 20100930;  
CA 2756033 C 20140128; CN 102387870 A 20120321; CN 102387870 B 20150520; EP 2414106 A1 20120208; EP 2414106 A4 20140514;  
EP 2414106 B1 20201230; JP 2012521496 A 20120913; JP 5275509 B2 20130828; KR 101548553 B1 20150901; KR 20120009422 A 20120201;  
MX 2011009089 A 20110927; PL 2414106 T3 20210531

DOCDB simple family (application)

**US 2010000858 W 20100324**; AU 2010229319 A 20100324; CA 2756033 A 20100324; CN 201080013473 A 20100324;  
EP 10756469 A 20100324; JP 2012501999 A 20100324; KR 20117018812 A 20100324; MX 2011009089 A 20100324; PL 10756469 T 20100324