

Title (en)
CHROMATE-FREE CONVERSION LAYER AND PROCESS FOR PRODUCING THE SAME

Title (de)
CHROM(VI)-FREIE KONVERSIONSSCHICHT SOWIE VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)
COUCHE DE CONVERSION EXEMPTÉ DE CHROME(VI) ET SON PROCÉDE DE PRODUCTION

Publication
EP 0907762 B1 20011017 (DE)

Application
EP 97925823 A 19970418

Priority
• DE 9700800 W 19970418
• DE 19615664 A 19960419

Abstract (en)
[origin: US2003207133A1] A chromium(VI)-free, chromium(III)-containing and substantially coherent conversion layer on zinc or zinc alloys presenting, even in the absence of further components such as silicate, cerium, aluminum and borate, a corrosion protection of approx. 100 to 1000 h in the salt spray test according to DIN 50021 SS or ASTM B 117-73 until first attack according to DIN 50961 Chapter 10; being clear, transparent and substantially colorless and presenting multi-colored iridescence; having a layer thickness of approx. 100 nm to 1000 nm; and being hard, adhering well and being resistant to wiping.

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C23C 22/53

IPC 8 full level
B05D 3/10 (2006.01); **B05D 7/14** (2006.01); **C23C 22/30** (2006.01); **C23C 22/53** (2006.01)

CPC (source: EP US)
C23C 22/34 (2013.01 - EP US); **C23C 22/53** (2013.01 - EP US); **C23C 2222/10** (2013.01 - EP US); **Y10T 428/12583** (2015.01 - EP US); **Y10T 428/1259** (2015.01 - EP US); **Y10T 428/12611** (2015.01 - EP US); **Y10T 428/12792** (2015.01 - EP US); **Y10T 428/12799** (2015.01 - EP US)

Cited by
US8394208B2; CN106757281A; DE10223022A1; US2010175792A1; WO2012045725A1; US9034473B2; DE102008044143A1; WO2012045712A1; EP2492371A1; US7655279B2; EP1715001A2; WO2012045713A1; EP3771748A1; EP2189551B1

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DOCDB simple family (publication)
US 2003207133 A1 20031106; US 6946201 B2 20050920; AT E207135 T1 20011115; AU 3087397 A 19971112; BR 9710954 A 20040824; DE 19615664 A1 19971023; DE 59704982 D1 20011122; DK 0907762 T3 20020107; EP 0907762 A1 19990414; EP 0907762 B1 20011017; ES 2163776 T3 20020201; JP 2000509434 A 20000725; JP 2004003019 A 20040108; JP 3597542 B2 20041208; JP 4493930 B2 20100630; PT 907762 E 20020429; US 6287704 B1 20010911; WO 9740208 A1 19971030

DOCDB simple family (application)
US 90499301 A 20010713; AT 97925823 T 19970418; AU 3087397 A 19970418; BR 9710954 A 19970418; DE 19615664 A 19960419; DE 59704982 T 19970418; DE 9700800 W 19970418; DK 97925823 T 19970418; EP 97925823 A 19970418; ES 97925823 T 19970418; JP 2003129149 A 20030507; JP 53759697 A 19970418; PT 97925823 T 19970418; US 17155899 A 19990329