

Title (en)

Conversion coating process for magnesium alloys

Title (de)

Umwandlungsbeschichtungsverfahren für Magnesiumlegierungen

Title (fr)

Procédé de revêtement par conversion pour alliages de magnésium

Publication

EP 2944707 A1 20151118 (EN)

Application

EP 14382173 A 20140516

Priority

EP 14382173 A 20140516

Abstract (en)

The present invention relates to a process for surface treating a magnesium alloy which comprises the following steps: (i) blasting the substrate; (ii) degreasing the substrate; (iii) pickling the substrate; (iv) activating the substrate; and (v) contacting the substrate with a chemical conversion coating solution comprising potassium permanganate and sodium phosphate and one of the following additives mixture: (a) calcium nitrate and yttrium nitrate or (b) calcium nitrate and sodium vanadate. The invention also relates to a magnesium alloy substrate obtained according to the process of the invention, to its use in the aerospace and automotive sectors, to parts for use in these sectors, and to a chemical conversion coating solution suitable for use in the process comprising potassium permanganate, sodium phosphate, and (a) calcium nitrate and yttrium nitrate, or (b) calcium nitrate and sodium vanadate.

IPC 8 full level

C23C 22/22 (2006.01); **C23C 22/42** (2006.01); **C23C 22/78** (2006.01)

CPC (source: EP)

C23C 22/22 (2013.01); **C23C 22/42** (2013.01); **C23C 22/78** (2013.01)

Citation (applicant)

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- ES 2178917 A1 20030101 - FUNDACION INASMET [ES]

Citation (search report)

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Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2944707 A1 20151118; **EP 2944707 B1 20170322**; ES 2631136 T3 20170828

DOCDB simple family (application)

EP 14382173 A 20140516; ES 14382173 T 20140516