

Title (en)  
SCRATCH-RESISTANT AND EXPANDABLE CORROSION PREVENTION LAYER FOR LIGHT METAL SUBSTRATES

Title (de)  
KRATZFESTE UND DEHNBARE KORROSIONSSCHUTZSCHICHT FÜR LEICHTMETALLSUBSTRATE

Title (fr)  
COUCHE ANTICORROSION ANTIRAYURES ET EXTENSIBLE POUR SUBSTRATS EN MÉTAL LÉGER

Publication  
**EP 2203258 B1 20120530 (DE)**

Application  
**EP 08844614 A 20081031**

Priority  
• EP 2008064826 W 20081031  
• DE 102007000611 A 20071031

Abstract (en)  
[origin: WO2009056635A2] The invention relates to a method for coating the surface of a light metal substrate, said method comprising the following steps: A. the light metal substrate is prepared and optionally the substrate surface to be coated is cleaned, B. the substrate surface optionally cleaned in step A is coated in a plasma polymerisation reactor by means of plasma polymerisation. In step B, at least one organosilicon compound and (a) no other compound or (b) other compounds is/are used as precursor(s) for the plasma, and the light metal substrate is arranged in the plasma polymerisation reactor such that (i) it is located between the region wherein the plasma is formed and the cathode is arranged, or (ii) it acts as a cathode. The invention is characterised in that the method is carried out in such a way that the coating produced by the method comprises: between 5 and 20 atom %, preferably between 10 and 15 atom %, of a carbon part that can be determined by XPS measurement, in relation to the total amount of carbon, silicon and oxygen atoms contained in the coating, a yellow index, determined according to ASTM D 1925, of = 3, preferably = 2.5, and a hardness, to be measured by means of nanoindentation, of between 2.5 and 6 GPa, preferably between 3.1 and 6 GPa.

IPC 8 full level  
**B05D 7/24** (2006.01)

CPC (source: EP US)  
**B05D 1/62** (2013.01 - EP US); **B05D 3/141** (2013.01 - EP US); **B05D 2202/20** (2013.01 - EP US); **Y10T 428/31663** (2015.04 - EP US)

Cited by  
DE102016214107A1

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 MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**DE 102007000611 A1 20090507**; EP 2203258 A2 20100707; EP 2203258 B1 20120530; US 2012003483 A1 20120105;  
WO 2009056635 A2 20090507; WO 2009056635 A3 20090730

DOCDB simple family (application)  
**DE 102007000611 A 20071031**; EP 08844614 A 20081031; EP 2008064826 W 20081031; US 74002208 A 20081031