

Title (en)  
Coating structure

Title (de)  
Beschichtungsaufbau

Title (fr)  
Montage de revêtement

Publication  
**EP 2308607 A1 20110413 (DE)**

Application  
**EP 10187278 A 20101012**

Priority  
DE 102009049137 A 20091012

Abstract (en)  
The anti-adhesive coating for a surface of a substrate containing an anti-adhesive plastic such as a fluorine polymer, comprises hierarchical layer structures applied on a micro-structured lower base with a micro-structured first layer and an overlapped sub micro-structured second layer. The first layer has 5-30 wt.% of organic or inorganic particles such as polyphenylene sulfone or silicon carbide. The anti-adhesive coating has a water contact angle (CA) of  $\geq 150$ [deg] C in connection with water contact angle-hysteresis (CAH) of  $\leq 8$ [deg] and/or a flow angle of  $\leq 10$ [deg] . The anti-adhesive coating for a surface of a substrate containing an anti-adhesive plastic such as a fluorine polymer, comprises hierarchical layer structures applied on a micro-structured lower base with a micro-structured first layer and an overlapped sub micro-structured second layer. The first layer has 5-30 wt.% of organic or inorganic particles such as polyphenylene sulfone or silicon carbide. The anti-adhesive coating has a water contact angle (CA) of  $\geq 150$ [deg] C in connection with water contact angle-hysteresis (CAH) of  $\leq 8$ [deg] and/or a flow angle of  $\leq 10$ [deg] . The anti-adhesive coating has an adhesive tape-deduction power of 0. An independent claim is included for a method for producing an anti-adhesive coating.

Abstract (de)  
Die Erfindung betrifft eine Antihafbeschichtung für eine Oberfläche eines Substrats. Um die Antihafteigenschaften gegenüber den vorbekannten Oberflächenbeschichtungen deutlich zu verbessern und ausreichende Stabilität zu gewährleisten, enthält die Oberflächenbeschichtung mindestens ein Fluorpolymer und ist gekennzeichnet durch einen Schichtaufbau mit mindestens einer mikrostrukturierten ersten Schicht und mindestens einer diese überlagernden, submikrostrukturierten zweiten Schicht. Die Erfindung betrifft weiterhin ein Verfahren zur Herstellung einer solchen Oberflächenbeschichtung, bei dem der mikrostrukturierte Untergrund durch Aufbringen einer mikrostrukturierten Schicht auf eine makrostrukturierte Oberfläche erzeugt wird.

IPC 8 full level  
**B05D 5/02** (2006.01); **B05D 5/08** (2006.01)

CPC (source: EP US)  
**B05D 5/02** (2013.01 - EP US); **B05D 5/083** (2013.01 - EP US); **B05D 2350/38** (2013.01 - EP US); **B05D 2350/65** (2013.01 - EP US); **B05D 2601/20** (2013.01 - EP US); **B05D 2602/00** (2013.01 - EP US); **Y10T 428/24355** (2015.01 - EP US)

Citation (applicant)  
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• DE 3544211 A1 19870619 - BAYER AG [DE]  
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• "Purity of sacred lotus or escape from contamination in biological surfaces", PLANTA, vol. 202, no. 1, pages 1 - 8

Citation (search report)  
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• [X] EP 0719594 A1 19960703 - HORT STEFAN [CH]  
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• [X] DE 3644211 A1 19870827 - BRAUN AG [DE]  
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Designated contracting state (EPC)  
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Designated extension state (EPC)  
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