

Title (en)

SURFACE WITH A WETTABILITY-REDUCING MICROSTRUCTURE AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

OBERFLÄCHE MIT EINER DIE BENETZBARKEIT VERMINDERNDEN MIKROSTRUKTUR UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)

SURFACE PRESENTANT UNE MICROSTRUCTURE REDUISANT LA MOUILLABILITE ET PROCEDE POUR LA PRODUIRE

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Application

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Abstract (en)

[origin: WO2006082179A1] The invention relates to a surface with an adhesion-reducing microstructure and to a method for the production thereof. Adhesion-reducing microstructures of this type exist in order to form, for example, self-cleaning surfaces while utilizing the so-called lotus effect. The invention provides that during an electrochemical production of the layer, particles (21n) having an oligophobic surface are added to the electrolyte whereby forming a suspension with the electrolyte, and/or molecules (21m) having oligophobic properties are added whereby dissolving in the electrolyte, so that the particles or molecules are incorporated in the layer that forms the surface. The produced microstructure of the inventive surface having oligophilic and oligophobic surface areas consisting of elevations (19) and depressions (20) can be superimposed by smaller dimension elevations (19n) and depressions (20n) of a nanostructure whereby enabling the lotus effect obtained by the surface to be advantageously improved. The surfaces can be used, for example, in building components such as façades or also in machine parts, which are exposed to the earth's atmosphere, where both hydrophilic as well as oligophilic substances come in contact with the surface.

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