

Title (en)

A PROCESS FOR PREPARING OF COTTON TEXTILES HAVING SELF-CLEANING AND WASHING RESISTANT PROPERTIES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON BAUMWOLLTEXTILIEN MIT SELBSTREINIGUNGS- UND WASCHBESTÄNDIGKEITSEIGENSCHAFTEN

Title (fr)

PROCÉDÉ DE PRÉPARATION DE TEXTILES EN COTON AYANT DES PROPRIÉTÉS DE RÉSISTANCE AU LAVAGE ET AUTONETTOYANTES

Publication

**EP 2990527 B1 20180207 (EN)**

Application

**EP 15468007 A 20150811**

Priority

SI 201400289 A 20140818

Abstract (en)

[origin: EP2990527A1] The invention relates to a process for the preparation of self-cleaning wash-resistant and air-permeable superhydrophobic and oleophobic cotton textiles. The coating is applied to the surface of the cotton textile and results in sliding angles for water that are lower than 10 degrees, even after 10 washings. The coatings consist of differently sized premade siloxane particles and particles grown in-situ in the presence of cotton textiles. The in-situ preparation of siloxane particles provides a bi-hierarchical surface roughness and a good connection between the siloxane particles and the textile, which is further strengthened by the use of fluorinated alkoxy silanes. The combination of the proposed solution enables improved wash-resistant properties for the coatings.

IPC 8 full level

**D06M 11/79** (2006.01); **D06M 23/08** (2006.01); **D06M 101/06** (2006.01)

CPC (source: EP)

**D06M 11/79** (2013.01); **D06M 23/08** (2013.01); **D06M 2101/06** (2013.01); **D06M 2200/01** (2013.01); **D06M 2200/05** (2013.01); **D06M 2200/11** (2013.01); **D06M 2200/12** (2013.01); **D06M 2400/01** (2013.01); **D06M 2400/02** (2013.01)

Cited by

CN111501357A; CN114657789A; CN112376281A; CN112813683A; CN111172761A; CN110172835A; CN115369651A; EP3543398A1; CN110295506A; US11708494B2; US11326303B2; US11913164B2

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 2990527 A1 20160302**; **EP 2990527 B1 20180207**; SI 24784 A 20160229

DOCDB simple family (application)

**EP 15468007 A 20150811**; SI 201400289 A 20140818