

Title (en)

HIGHLY BRANCHED POLYALKOXYSILOXANE ADDITIVES FOR DIRT-REPELLENT SURFACE COATINGS

Title (de)

HOCHVERZWEIGTE POLYALKOXYSILOXANADDITIVE FÜR SCHMUTZABWEISENDE OBERFLÄCHENBESCHICHTUNGEN

Title (fr)

ADDITIFS DE POLYALKOXYSILOXANE TRÈS RAMIFIÉ POUR LES REVÊTEMENTS DE SURFACE ANTI-SALISSURES

Publication

EP 3004237 A1 20160413 (DE)

Application

EP 14726353 A 20140523

Priority

- EP 13169258 A 20130524
- EP 2014060694 W 20140523
- EP 14726353 A 20140523

Abstract (en)

[origin: WO2014187972A1] The invention relates to the use of a fluorine-free polyalkoxysiloxane, (a) having a degree of branching $VG \geq 0.4$ calculated according to the following formula: $VG = (2Q_4 + Q_3) / (2Q_4 + 4/3Q_3 + 2/3Q_2)$ in which Q_n is determined for $n = 0$ to 4 using ^{29}Si -NMR, Q_n stands in each case for $n = 0$ to 4 for the area below the ^{29}Si -NMR signal of a (4-n)-times alkoxyated Si atom, and the sum of Q_n for $n = 0$ to 4 is normed to 100%, and b) said polyalkoxysiloxane being produced using a non-hydrolytic polycondensation method, as an additive in coating agent compositions at an amount of 0.1 to 10 wt.% relating to the total weight of the coating agent composition, said coating agent composition containing at least one synthetic polymer selected from the group consisting of physically drying, self-crosslinking reactive or externally-crosslinking reactive synthetic polymers which differ from the fluorine-free polyalkoxysiloxane, and in the case of an externally-crosslinking reactive synthetic polymer, a crosslinking agent which differs from the fluorine-free polyalkoxysiloxane and from said externally-crosslinking synthetic polymer. The invention also relates to coating agent compositions containing aforementioned polysiloxanes as additives, to such additives in solid form, to a method for coating substrates, and to cured coatings which consist of said coating agent compositions.

IPC 8 full level

C08K 5/5415 (2006.01); **C08L 83/04** (2006.01)

CPC (source: EP US)

C08K 5/5415 (2013.01 - EP US); **C08L 83/04** (2013.01 - EP US); **C09D 167/00** (2013.01 - US); **C09D 183/06** (2013.01 - US)

Citation (search report)

See references of WO 2014187972A1

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)

WO 2014187972 A1 20141127; CN 105431482 A 20160323; CN 105431482 B 20180316; EP 3004237 A1 20160413; JP 2016526073 A 20160901; KR 20160013959 A 20160205; US 2016075918 A1 20160317

DOCDB simple family (application)

EP 2014060694 W 20140523; CN 201480041698 A 20140523; EP 14726353 A 20140523; JP 2016514438 A 20140523; KR 20157036320 A 20140523; US 201514950410 A 20151124