

Title (en)

Applicator for liquid, pasty or powdered products comprising twisted bristles and package provided therewith

Title (de)

Auftragsvorrichtung für flüssige, pastöse oder pulverförmige Produkte mit schraubenförmigen Borsten sowie damit ausgestattete Verpackung

Title (fr)

Applicateur de produit liquide, pâteux ou pluvéulent comportant des fibres torsadées, et ensemble d'application ainsi équipé

Publication

**EP 1070462 B1 20031126 (FR)**

Application

**EP 00401918 A 20000704**

Priority

FR 9909527 A 19990722

Abstract (en)

[origin: EP1070462A1] The applicator consists of a reservoir (2) for the product and an applicator brush with a holder (3), a rod (5) and bristle tip (4) with a mixture of two different groups of bristles (9). The bristles in one group have at least part of their length made with a right-hand spiral twist (R20), while those in the other group have a left-hand spiral twist (P7). The bristles in both groups have a cross-section with a sharp edge which runs in a spiral along at least part of their length, e.g. square, triangular or rectangular. Other variants of the bristles' cross-section can have cavities, e.g. in the shape of a star, cross, or various letters of the alphabet.

IPC 1-7

**A45D 34/04**; **A46D 1/00**; **D01D 5/253**

IPC 8 full level

**A45D 29/00** (2006.01); **A45D 34/04** (2006.01); **A46D 1/00** (2006.01); **D01D 5/253** (2006.01)

CPC (source: EP US)

**A45D 34/045** (2013.01 - EP US); **A46D 1/00** (2013.01 - EP US); **A46D 1/0238** (2013.01 - EP US); **D01D 5/253** (2013.01 - EP US);  
**A46B 2200/1053** (2013.01 - EP US)

Cited by

FR2982466A1; WO2018220286A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 1070462 A1 20010124**; **EP 1070462 B1 20031126**; AR 024895 A1 20021030; AT E254864 T1 20031215; BR 0003441 A 20010313;  
BR 0003441 B1 20081118; CA 2314435 A1 20010122; CA 2314435 C 20041123; CN 1156239 C 20040707; CN 1290504 A 20010411;  
DE 60006745 D1 20040108; DE 60006745 T2 20040930; ES 2211472 T3 20040716; FR 2796531 A1 20010126; FR 2796531 B1 20010928;  
JP 2001061544 A 20010313; JP 3482383 B2 20031222; MX PA00007038 A 20020604; US 6280113 B1 20010828

DOCDB simple family (application)

**EP 00401918 A 20000704**; AR P000103759 A 20000721; AT 00401918 T 20000704; BR 0003441 A 20000719; CA 2314435 A 20000718;  
CN 00121665 A 20000721; DE 60006745 T 20000704; ES 00401918 T 20000704; FR 9909527 A 19990722; JP 2000223128 A 20000724;  
MX PA00007038 A 20000718; US 62196600 A 20000721