Title (en)

Improved pinned rollers and process for manufacturing fibrillated films.

Title (de)

Nadelwalze und Verfahren zur Herstellung von fibrillierten Folien.

Title (fr)

Rouleau à aiguilles et procédé pour la fabrication de films fibrilles.

Publication

EP 0358334 A1 19900314 (EN)

Application

EP 89308042 A 19890808

Priority

US 23114488 A 19880810

Abstract (en)

Roller 10 has a cylindrical surface 12 from which project pins 16 inclined at an angle A between 20 DEG and 80 DEG to the tangent to the roller. The pins have a projection length of 0.5 to 2.0 mm and a diameter of 0.2 to 0.8 mm. They are arranged in double rows 14 with 25 to 34 pins to the inch arranged in a spaced staggered relationship in two adjacent lines. Each row is either inclined to a line parallel to the axis of the roller or of sinusoidal form. A film to be fibrillated is advanced over the surface of the rotating roller for an arc length of contact of 30 DEG to 37 DEG with the ratio of the surface speed of the roller to that of the advancing film being between 1.8 to 1 and 2.2 to 1.

IPC 1-7

D01D 5/42

IPC 8 full level

A24D 3/02 (2006.01); **A24D 3/08** (2006.01); **D01D 5/42** (2006.01)

CPC (source: EP KR)

D01D 5/42 (2013.01 - KR); **D01D 5/423** (2013.01 - EP)

Citation (search report)

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- [Y] FR 1552888 A 19690110
- [Y] GB 1421324 A 19760114 - STEWART & SONS WM R
- [A] DE 1931265 A1 19701223 - ETEX AG
- [A] GB 1411561 A 19751029 - MACKIE & SONS LTD J
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WO2011138263A1; US9011134B2

Designated contracting state (EPC)

BE CH DE ES FR GB LI NL SE

DOCDB simple family (publication)

WO 9001574 A1 19900222; AU 4078189 A 19900305; BR 8907600 A 19910730; CN 1040734 A 19900328; CS 473989 A3 19920415; DD 298595 A5 19920305; EP 0358334 A1 19900314; HU 895180 D0 19911028; HU T59448 A 19920528; JP H04500100 A 19920109; KR 900702091 A 19901205; YU 157589 A 19911031; ZA 896002 B 19910130; ZW 9189 A1 19900425

DOCDB simple family (application)

GB 8900905 W 19890808; AU 4078189 A 19890808; BR 8907600 A 19890808; CN 89105538 A 19890809; CS 473989 A 19890809; DD 33158689 A 19890808; EP 89308042 A 19890808; HU 518089 A 19890808; JP 50898889 A 19890808; KR 900700736 A 19900409; YU 157589 A 19890809; ZA 896002 A 19890807; ZW 9189 A 19890807