

## Title (en)

Process and device for making a nonwoven web by depositing synthetic fibers

## Title (de)

Verfahren und Vorrichtung zum Ablegen synthetischer Fasern zu einem Vlies

## Title (fr)

Procédé et dispositif de fabrication d'un tissu non tissé par déposition de fibres synthétiques

## Publication

**EP 1837429 A1 20070926 (DE)**

## Application

**EP 06005679 A 20060320**

## Priority

EP 06005679 A 20060320

## Abstract (en)

The method for laying down synthetic fibers to form a non-woven, comprises removing the fibers from a melt spinning by a conveying fluid, accelerating the fiber into a guiding channel and leaving the conveying fluid and the fibers from the guiding channel as a fiber flow. The fiber flow is separated through a stacking belt guided diagonally to the channel and is directed before striking on the stacking belt, to a side in the direction of the stacking belt in such a way that the fibers strike the stacking belt in an angle of less than 60[deg] and traverse a path of less than 300 mm. The method for laying down synthetic fibers to form a non-woven, comprises removing the fibers from a melt-spinning by a conveying fluid, accelerating the fiber into a guiding channel and leaving the conveying fluid and the fibers from the guiding channel as a fiber flow. The fiber flow is separated through a stacking belt guided diagonally to the channel and is directed before striking on the stacking belt, to a side in the direction of the stacking belt in such a way that the fibers strike the stacking belt in an angle of less than 60[deg] and traverse a path of less than 300 mm. The intensity of the deviation of the fiber flow is changed depending on a process- or a product parameter. The deviation of the fiber flow is effected by a guiding plate, which extends itself sideways to the fibers between the guiding channel and the stacking belt, and by an additional air current, which flows in the direction of the stacking belt in a cross section through the fibers and also by a form body, which extends just above the stacking belt. The conveying fluid is injected into the guiding channel with an excess pressure of 0.5-5 bar. An independent claim is included for a device for laying down synthetic fibers to form a non-woven.

## Abstract (de)

Die Erfindung betrifft ein Verfahren zum Ablegen synthetischer Fasern zu einem Vlies sowie eine Vorrichtung zur Durchführung des Verfahrens. Hierbei werden die Fasern durch eine Abzugsdfiseneinrichtung in einer reihenförmigen Anordnung durch ein Förderfluid abgezogen, in einem Führungskanal beschleunigt und als ein Faserstrom in Richtung eines Ablagebandes ausgeblasen. Erfindungsgemäß wird der Faserstrom unmittelbar vor dem Auftreffen auf das Ablageband einseitig in Führungsrichtung des Ablagebandes derart ausgelenkt, dass die Fasern in einem Winkel von < 90° auf das Ablageband auftreffen. Hierzu ist dem Ablageband ein entsprechendes Auslenkmittel zugeordnet.

## IPC 8 full level

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## CPC (source: EP)

**D04H 3/03** (2013.01); **D04H 3/037** (2013.01); **D04H 3/16** (2013.01)

## Citation (applicant)

- US 6183684 B1 20010206 - LU FUMIN [US]
- US 2002158362 A1 20021031 - KUROIWA YUKI [JP], et al
- DE 3740893 A1 19881110 - REIFENHAEUSER MASCH [DE]

## Citation (search report)

- [X] JP S52118069 A 19771004 - ASAHI CHEMICAL IND & DATABASE WPI Section Ch Week 198451, Derwent World Patents Index; Class F04, AN 1984-316729, XP002393362
- [XY] EP 0843036 A1 19980520 - NIPPON PETROCHEMICALS CO LTD [JP], et al
- [X] JP H07207564 A 19950808 - NEW OJI PAPER CO LTD & PATENT ABSTRACTS OF JAPAN vol. 1995, no. 11 26 December 1995 (1995-12-26)
- [AY] EP 0564784 A1 19931013 - KIMBERLY CLARK CO [US]
- [A] EP 1081262 A1 20010307 - NIPPON PETROCHEMICALS CO LTD [JP], et al
- [A] FR 2217459 A1 19740906 - VVB TECH TEXTILIEN KARL [DD]

## Cited by

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## Designated contracting state (EPC)

CH DE FR IT LI

## Designated extension state (EPC)

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## DOCDB simple family (application)

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