

Title (en)

NONWOVEN FABRIC, PRODUCTION THEREOF, AND APPARATUS THEREFOR

Title (de)

NICHTGEWOBENES GEWEBE, DESSEN HERSTELLUNG UND VORRICHTUNG DAZU

Title (fr)

TISSU NON TISSE, PRODUCTION DE CE TISSU, ET INSTALLATION RELATIVE

Publication

**EP 0414917 B2 20010103 (EN)**

Application

**EP 90904418 A 19900312**

Priority

- JP 9000318 W 19900312
- JP 5838489 A 19890310

Abstract (en)

[origin: EP0414917A1] A nonwoven fabric of the invention is characterized by comprising a filament layer wherein numerous filaments formed of a polymer material are spirally arranged as if numerous slender ellipses are arranged on a plane one beside another. It is produced by spinning a polymer material into filaments, vibrating the filaments, amplifying the vibration, and arranging the filaments in the form of an assembly of slender ellipses substantially in the direction of the major axis of the ellipse.

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**D04H 3/05**

IPC 8 full level

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CPC (source: EP)

**D04H 3/03** (2013.01); **D04H 3/05** (2013.01); **D04H 3/16** (2013.01)

Citation (opposition)

Opponent :

- FR 2295153 A1 19760716 - HOECHST AG [DE]
- DE 2408080 A1 19750828 - BENECKE GMBH J
- DE 2200782 A1 19730802 - METALLGESELLSCHAFT AG
- DE 3907215 A1 19891130 - COROVIN GMBH [DE]

Cited by

EP1088916A1; WO2007036338A3; US8323730B2; US7329621B2; US6877971B2

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DE FR GB IT

DOCDB simple family (publication)

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