

Title (en)  
Nonwoven cloth made of very fine continuous filaments

Title (de)  
Vliesstoff aus sehr feinen Endlosfilamenten

Title (fr)  
Nappe nontissée formée de filaments continus très fins

Publication  
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Application  
**EP 97108364 A 19970523**

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FR 9607659 A 19960617

Abstract (en)  
A non-woven fabric web of continuous filaments which may or may not be crimped, is made by direct controlled spinning and has a weight of 5-600 g/m<2>, formed after laying composite filaments that are separable in the longitudinal direction. The composite filaments have a titre of 0.3-10 dTex and are each made up of at least three elementary filaments made from at least two different materials, having between them at least one plane of separation or cleavage, each elementary filament having a titre of 0.005-2 dTex and the ratio between the cross sectional area of each elementary filament and the total cross sectional area of the unitary filament being 0.5- 90%.

Abstract (fr)  
La présente invention a pour objet une nappe nontissée formée de filaments très fins. Nappe nontissée de filaments continus, frisés ou non, obtenue au moyen d'un procédé de filage direct contrôlé, présentant un grammage compris entre 5 g/m<2> et 600 g/m<2> et formée, après nappage, de filaments composites séparables dans le sens de leur longueur, caractérisée en ce que lesdits filaments composites présentent un titre compris entre 0,3 dTex et 10 dTex et sont formés, chacun, par au moins trois filaments élémentaires en au moins deux matériaux différents et comprenant entre eux au moins un plan de séparation ou de clivage, chaque filament élémentaire présentant un titre compris entre 0,005 dTex et 2 dTex et le rapport entre la surface de la section transversale de chaque filament élémentaire et la surface totale de la section transversale du filament unitaire étant compris entre 0,5 % et 90 %. <IMAGE>

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IPC 8 full level  
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Citation (search report)  
• [X] EP 0455927 A1 19911113 - NANYA PLASTICS CORP [TW]  
• [X] US 4369156 A 19830118 - MATHES NIKOLAUS [DE], et al  
• [X] US 4239720 A 19801216 - GERLACH KLAUS [DE], et al  
• [X] PATENT ABSTRACTS OF JAPAN vol. 095, no. 004 31 May 1995 (1995-05-31)  
• [X] PATENT ABSTRACTS OF JAPAN vol. 017, no. 523 (C - 1113) 21 September 1993 (1993-09-21)  
• [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 430 (C - 1236) 11 August 1994 (1994-08-11)

Cited by  
DE102007041630A1; DE102016010163A1; WO2013120599A1; EP1891871A2; DE19962355A1; DE19962357A1; DE19962356A1; DE102006044032B4; EP1359244A3; DE102006027284B4; DE102006027284A1; DE19962359A1; DE19962359B4; FR2779746A1; CN106536804A; DE102004006373A1; DE102004006373B4; DE19962361A1; DE102007041630B4; DE10258112A1; DE10258112B4; FR2790487A1; EP1048760A1; DE10026281A1; DE10026281B4; DE102012002954B4; AU2013220719B2; DE19934442A1; DE19934442C2; DE10009283A1; DE10009283C2; DE10002778A1; DE10002778B4; EP1749916A1; US8021997B2; US7914719B2; EP2650428A2; EP1619283A1; DE102004036099A1; DE102004036099B4; DE19962360A1; DE19962360B4; DE10129366B4; WO9828476A1; WO0147382A1; WO0148293A1; WO0148295A1; DE102012002954A1; US10744435B2; WO02077332A1; WO0148294A1; WO9964650A1; WO2016016848A1; WO0147384A3; WO0166844A3; EP1891871B1; US6815382B1; US6555490B1; DE102009029049A1; DE202009018620U1; WO0148292A1; WO0147383A1; WO2012155980A1; WO2007112443A3; WO02097187A1; WO0148278A3

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DOCDB simple family (application)  
**EP 97108364 A 19970523**; BR 9703602 A 19970617; CA 2208117 A 19970605; CN 97112798 A 19970616; DE 69725051 T 19970523; FR 9607659 A 19960617; JP 15900297 A 19970616; TW 86109666 A 19970709; US 87711197 A 19970617; ZA 975216 A 19970612