

Title (en)  
Cleaning sheet

Title (de)  
Reinigungstuch

Title (fr)  
Serviette de nettoyage

Publication  
**EP 1118305 A3 20020925 (DE)**

Application  
**EP 00127877 A 20001220**

Priority  
DE 10002778 A 20000122

Abstract (en)  
[origin: EP1118305A2] Cleaning cloth is nonwoven material of micro-filaments, with specified fabric weight. The melt-spun multi-component continuous filaments have specified thickness and are laid directly into nonwoven fabric structure. After hardening the filaments can be split into micro-filaments and stabilized. The filaments are composed of incompatible polymers, side-by-side, and can contain various additives. The cleaning cloth is a nonwoven material of micro-filaments, with a fabric weight of 30-500 g/m<2>. The melt-spun multi-component continuous filaments are laid directly into a nonwoven fabric structure. The filaments have a thickness of 1.5-5.0 dtex. After hardening, the filaments can be split into micro-filaments with a thickness of 0.5-1.0 dtex, and stabilized. The filaments are composed of incompatible polymers, side-by-side, and can contain additives such as color pigments, antistatic agents, fungicides, bactericides, acaricides and/or agents to give a hydrophobic/hydrophilic character.

IPC 1-7  
**A47L 13/16**; **A47L 13/17**; **A47K 10/02**; **D04H 3/10**; **D04H 3/14**

IPC 8 full level  
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CPC (source: EP US)  
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Citation (search report)

- [EL] WO 0140558 A2 20010607 - FREUDENBERG CARL FA [DE], et al
- [EL] WO 0148292 A1 20010705 - FREUDENBERG CARL FA [DE], et al
- [X] US 5970583 A 19991026 - GROTEN ROBERT [FR], et al
- [A] EP 0624676 A1 19941117 - UNITIKA LTD [JP]
- [A] WO 9932288 A1 19990701 - KIMBERLY CLARK CO [US]
- [A] US 5935883 A 19990810 - PIKE RICHARD DANIEL [US]
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 133 (C - 0925) 6 April 1992 (1992-04-06)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11 30 September 1998 (1998-09-30)

Cited by  
EP1619283A1; EP1903134A1; CN1321609C; US11045035B2; EP2654028A1; US8021997B2; US11084650B2; US10737876B2; US11498750B2; EP3154874B1

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