

Title (en)  
STRETCHABLE NONWOVEN FABRIC

Title (de)  
DEHNBARER VLIESTOFF

Title (fr)  
NON-TISSE ETIRABLE

Publication  
**EP 1693497 A4 20081022 (EN)**

Application  
**EP 04820152 A 20041201**

Priority  
• JP 2004017851 W 20041201  
• JP 2003408728 A 20031208

Abstract (en)  
[origin: EP1693497A1] The object of the present invention is to improve the elasticity of a nonwoven fabric manufactured by the spunbonding method. To attain the object, the present invention provides a nonwoven fabric manufactured by the spunbonding method, wherein a lot of holes are formed in the nonwoven fabric by the needle punching method, to give said nonwoven fabric elasticity. Synthetic resin may be impregnated into the nonwoven fabric.

IPC 8 full level  
**B29B 11/16** (2006.01); **D04H 1/48** (2006.01); **D04H 1/488** (2012.01); **D04H 3/10** (2006.01); **D04H 3/16** (2006.01)

CPC (source: EP KR US)  
**D04H 3/105** (2013.01 - EP KR US); **D04H 3/16** (2013.01 - KR); **D06M 15/00** (2013.01 - KR); **Y10T 442/601** (2015.04 - EP US)

Citation (search report)  
• [X] DE 3405109 A1 19851017 - FREUDENBERG CARL FA [DE]  
• [A] JP S63274518 A 19881111 - IKEDA BUSSAN CO  
• [A] EP 0472992 A1 19920304 - KIMBERLY CLARK CO [US]  
• [A] DE 19827567 A1 19991223 - COROVIN GMBH [DE]  
• See references of WO 2005056902A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1693497 A1 20060823; EP 1693497 A4 20081022**; CA 2548380 A1 20050623; JP 2005171395 A 20050630; JP 4071704 B2 20080402; KR 20060132594 A 20061221; TW 200530451 A 20050916; TW I292787 B 20080121; US 2008026660 A1 20080131; WO 2005056902 A1 20050623

DOCDB simple family (application)  
**EP 04820152 A 20041201**; CA 2548380 A 20041201; JP 2003408728 A 20031208; JP 2004017851 W 20041201; KR 20067010323 A 20060526; TW 93137142 A 20041202; US 58217904 A 20041201