

Title (en)  
Graduated density felt.

Title (de)  
Filz mit stufenweiser Dichte.

Title (fr)  
Feutre de densité graduée.

Publication  
**EP 0388062 A2 19900919 (EN)**

Application  
**EP 90302371 A 19900306**

Priority  
GB 8905793 A 19890314

Abstract (en)  
An absorbent material having graduated density is manufactured by needling a web. Before needling but after tacking the web is of substantially constant density across its thickness, and needling is carried out so that the needles penetrate the web to the extent that only the surfaces of the web are needled. The absorbent material is useful in particular for medical and surgical applications, where it is desirable that the material should exhibit delayed fluid strike through.

IPC 1-7  
**A61F 13/00**; **A61L 15/00**; **D04H 1/46**

IPC 8 full level  
**A61F 13/00** (2006.01); **A61L 15/00** (2006.01); **D04H 1/4258** (2012.01); **D04H 1/4266** (2012.01); **D04H 1/4291** (2012.01); **D04H 1/43** (2012.01); **D04H 1/435** (2012.01); **D04H 1/46** (2006.01)

CPC (source: EP)  
**D04H 1/4258** (2013.01); **D04H 1/4266** (2013.01); **D04H 1/4291** (2013.01); **D04H 1/43** (2013.01); **D04H 1/435** (2013.01); **D04H 1/46** (2013.01)

Cited by  
DE4340562A1; US5685247A; EP1067227A1; DE4222207A1; DE4222207C3; US5879487A; US5677028A; WO2014068290A1; WO9636304A1; WO9322486A1; WO9506560A1

Designated contracting state (EPC)  
AT BE CH DE FR GB LI SE

DOCDB simple family (publication)  
**EP 0388062 A2 19900919**; **EP 0388062 A3 19901024**; **EP 0388062 B1 19931229**; AT E99363 T1 19940115; DE 69005488 D1 19940210; DE 69005488 T2 19940421; GB 8905793 D0 19890426

DOCDB simple family (application)  
**EP 90302371 A 19900306**; AT 90302371 T 19900306; DE 69005488 T 19900306; GB 8905793 A 19890314