

Title (en)  
MULTILAYERED FABRIC

Publication  
**EP 0176847 A3 19890426 (DE)**

Application  
**EP 85111672 A 19850916**

Priority  
DE 3435643 A 19840928

Abstract (en)  
[origin: EP0176847A2] A multilayered fabric which when used as support material for built-up roofing and sealing membranes shows not only good fire properties but also improved mechanical properties is obtained by needling together two preconsolidated fibre webs, one of which consists of synthetic fibres and the other of mineral fibres. The needling produces a strong positive bond between the two webs, which prevents the parting of the two layers under extreme thermomechanical conditions.

IPC 1-7  
**D04H 1/46**; **D04H 5/02**

IPC 8 full level  
**B32B 5/06** (2006.01); **B32B 5/26** (2006.01); **D04H 1/4218** (2012.01); **D04H 1/435** (2012.01); **D04H 1/46** (2006.01); **D04H 1/498** (2012.01); **D04H 5/02** (2012.01); **E04D 5/10** (2006.01)

CPC (source: EP US)  
**D04H 1/4218** (2013.01 - EP US); **D04H 1/435** (2013.01 - EP US); **D04H 1/498** (2013.01 - EP US); **D04H 3/004** (2013.01 - EP US); **D04H 5/02** (2013.01 - EP US); **Y10T 442/2213** (2015.04 - EP US); **Y10T 442/2254** (2015.04 - EP US); **Y10T 442/667** (2015.04 - EP US); **Y10T 442/685** (2015.04 - EP US)

Citation (search report)  
• [YD] DE 7739489 U1 19780420  
• [YP] US 4522876 A 19850611 - HIERS JOHN J [US]  
• [A] FR 1457339 A 19660124 - RHODIACETA

Cited by  
DE19618775A1; US5612114A; EP0572891A1; EP0446822A1; DE4114952A1; US5856243A; EP0315553A1; FR2622604A1; US5047276A; DE19955730A1; DE19955730C2; DE4339709A1; DE19620361A1; DE19620361C2; DE19620361C5; EP0667427A1; FR2715957A1; US5616395A; EP0403403A1; FR2648482A1; US5175042A; EP0242524A3; EP0465382A1; FR2663960A1; EP0432620A1; EP0359165A3; DE19935531A1; DE19935531C2; EP0413295A1; EP0409993A4; DE102006060241A1; DE10151411A1; DE10151411B4; DE19952432A1; DE19952432B4; DE102007060494A1; US6235657B1; WO9015181A1; DE102009005587A1; DE202006021073U1; US10260197B2; US11248338B2; US11408123B2; EP1939342A2; EP0285705B1; WO2021028369A1; US6412154B1; US7351673B1; US6630046B1; US7199065B1; EP2154281A2; DE202008010258U1; EP2360304A1; DE102010007939A1; EP0242524A2; EP3530804A1; US10836876B2

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

DOCDB simple family (publication)  
**EP 0176847 A2 19860409**; **EP 0176847 A3 19890426**; **EP 0176847 B1 19920701**; AT E77855 T1 19920715; AU 4797585 A 19860410; CA 1297281 C 19920317; DE 3435643 A1 19860410; DE 3586276 D1 19920806; DE 3605830 A1 19870827; FI 853681 A0 19850925; FI 853681 L 19860329; FI 94937 B 19950815; FI 94937 C 19951127; JP H0579020 B2 19931101; JP S6184238 A 19860428; NO 173665 B 19931004; NO 173665 C 19940112; NO 853811 L 19860401; US 5017426 A 19910521; ZA 857469 B 19860625

DOCDB simple family (application)  
**EP 85111672 A 19850916**; AT 85111672 T 19850916; AU 4797585 A 19850927; CA 491815 A 19850927; DE 3435643 A 19840928; DE 3586276 T 19850916; DE 3605830 A 19860222; FI 853681 A 19850925; JP 21273585 A 19850927; NO 853811 A 19850927; US 48188590 A 19900220; ZA 857469 A 19850927