

Title (en)
PROCESS FOR MAKING SPUN NONWOVEN SHEETS

Publication
EP 0013355 B1 19820210 (DE)

Application
EP 79104995 A 19791207

Priority
• DE 2900888 A 19790111
• DE 2924652 A 19790619

Abstract (en)
[origin: CA1120244A] In spunbonded webs of thermoplastics, which have a higher tensile strength in one direction than in the direction at right angles thereto, the tensile strengths are approximated to one another by stretching these webs, in which the filaments are in approximately random arrangement, and which have been consolidated by needle-punching, by 20 - 200% of the original length, in the direction of the lower tensile strength, at temperatures which are 85 - 25.degree.C below the crystallite melting point, whilst either maintaining the length, or changing it by an amount within the range of + 10%, in the direction at right angles to the stretching direction. O.Z.667/671

IPC 1-7
D04H 3/10; **D04H 3/16**

IPC 8 full level
D04H 3/005 (2012.01); **D04H 3/007** (2012.01); **D04H 3/10** (2012.01); **D04H 3/105** (2012.01); **D04H 3/16** (2006.01)

CPC (source: EP US)
D04H 3/007 (2013.01 - EP US); **D04H 3/10** (2013.01 - EP US); **D04H 3/105** (2013.01 - EP US); **D04H 3/16** (2013.01 - EP US)

Cited by
EP0156234A3; EP1233097A1; EP0469558A1; US7437807B2

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DOCDB simple family (publication)
EP 0013355 A1 19800723; **EP 0013355 B1 19820210**; AR 220806 A1 19801128; AU 530367 B2 19830714; AU 5437880 A 19800717; BG 41826 A3 19870814; BR 8000157 A 19801029; CA 1120244 A 19820323; DD 148650 A1 19810603; DE 2962106 D1 19820318; DK 10780 A 19800712; DK 147487 B 19840827; DK 147487 C 19850325; FI 63787 B 19830429; FI 63787 C 19830810; FI 793962 A 19800712; FR 2446342 A1 19800808; FR 2446342 B1 19810430; HU 181004 B 19830530; MX 152229 A 19850612; NO 150725 B 19840827; NO 150725 C 19841205; NO 794199 L 19800714; PL 120662 B1 19820331; PL 221310 A1 19800922; RO 82802 A 19840114; RO 82802 B 19840130; SU 974937 A3 19821115; UA 7726 A1 19951226; US 4497097 A 19850205; YU 380 A 19830228; YU 40863 B 19860630

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EP 79104995 A 19791207; AR 27958180 A 19800101; AU 5437880 A 19800107; BG 4615580 A 19800103; BR 8000157 A 19800110; CA 342963 A 19800103; DD 21839380 A 19800110; DE 2962106 T 19791207; DK 10780 A 19800110; FI 793962 A 19791218; FR 8000491 A 19800110; HU 4580 A 19800110; MX 18075680 A 19800110; NO 794199 A 19791220; PL 22131080 A 19800110; RO 9982780 A 19800109; SU 2869296 A 19800110; UA 2869296 A 19800110; US 11032080 A 19800108; YU 380 A 19800103