

Title (en)
Bulky nonwoven fabric

Title (de)
Voluminöser Vliesstoff

Title (fr)
Nontissé volumineux

Publication
EP 1172473 A1 20020116 (DE)

Application
EP 01109796 A 20010420

Priority
DE 10034113 A 20000713

Abstract (en)

The bulked nonwoven material (1) is knitted through (7) with a texturized yarn (6), at least in a forward warp direction (A-A). The nonwoven material is composed of continuous filaments and/or staple fibers, with a fabric weight of 5-100 g/cm². The texturized yarn has a count or 10-400 dtex, knitted through at intervals of 1-10/cm and with a stitch (8) count of 0.5-8.0/cm. The yarn is shrunk by 3-85% in a moist or wet heat process. The bulked nonwoven can have a fabric weight of 7-60 g/cm². The texturized yarn for knitting through can have a count of 30-300 dtex at intervals of 3-7/cm and a stitch count of 0.5-4.0/cm. The texturized yarn is shrunk by 5-60% in a moist or wet heat shrinking process. The nonwoven can have a fabric weight of 10-40 g/cm² with a partial patterned reinforcement over 2-35% or 4-25% of the surface, with a texturized yarn knitted through which has been shrunk by 8-35%. The continuous filaments or staple fibers forming the nonwoven have a count of 0.05-4.4 dtex. Up to 20 wt.% of the filaments/fibers can have a larger count than 4.4 dtex, with the condition that the arithmetic average count in the fabric does not exceed 4.4 dtex. The texturized yarns are shrunk at a temperature of at least 25 degrees C below the softening temperature of the fibers/filaments with the lowest softening point. The nonwoven is oriented across the machine running line. The filaments/fibers in the nonwoven contain at least 20 wt.% of inherently hydrophilic fibers, and the remainder are of synthetic fibers/filaments to bring the fiber/filaments up to 100 wt.%. At least a part of the synthetic fibers/filaments have a hydrophilic finish. At least a part of the material components contains super-absorbent fibers and/or filaments or fibers and/or filaments with a core clad with a super-absorbent coating. The nonwoven contains crimped and dyed fibers and/or filaments, and is impregnated with a sliding medium e.g. silicon oil, or a cleaning emulsion. The nonwoven has different structures on each side.

Abstract (de)

Die Erfindung betrifft einen voluminösen Vliesstoff, der zumindest in einer Vorzugsrichtung mit einem texturierten Garn durchwirkt ist, wobei ein Endlosfilament- und/oder Stapelfaservliesstoff mit einem Flächengewicht von 5 bis 100 g/m² mit einem texturierten Multifilamentgarn mit einem Titer im Bereich von 10 bis 400 dtex durchwirkt ist und wobei der Abstand der Multifilamentgarnfäden voneinander 1 bis 10/cm sowie die Maschenzahl 0,5 bis 8/cm beträgt und die Multifilamentgarnfäden durch feucht-thermische oder nass-thermische Behandlung um 3 bis 80 % geschrumpft sind. <IMAGE>

IPC 1-7
D04H 1/45; **D04H 1/52**; **D04B 21/16**

IPC 8 full level
D04B 21/14 (2006.01); **D04B 21/16** (2006.01); **D04H 1/06** (2006.01); **D04H 1/4382** (2012.01); **D04H 1/45** (2006.01); **D04H 1/492** (2012.01); **D04H 1/52** (2006.01); **D04H 1/70** (2006.01); **D04H 3/005** (2012.01); **D04H 3/11** (2012.01); **D04H 3/115** (2012.01); **D04H 3/147** (2012.01)

CPC (source: EP KR US)
D04B 21/165 (2013.01 - EP US); **D04H 1/407** (2013.01 - KR); **D04H 1/43828** (2020.05 - EP US); **D04H 1/43835** (2020.05 - EP US); **D04H 1/43838** (2020.05 - EP US); **D04H 1/45** (2013.01 - EP US); **D04H 1/492** (2013.01 - EP US); **D04H 1/52** (2013.01 - EP US); **D04H 3/005** (2013.01 - EP US); **D04H 3/11** (2013.01 - EP US); **D04H 3/115** (2013.01 - EP US); **D04H 3/147** (2013.01 - EP US); **D04H 13/00** (2013.01 - KR); **Y10T 442/60** (2015.04 - EP US); **Y10T 442/637** (2015.04 - EP US); **Y10T 442/697** (2015.04 - EP US)

Citation (search report)

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