

Title (en)

Needle for the mechanical consolidation of nonwovens by needling

Title (de)

Nadel für die mechanische Verfestigung von Faservliesbahnen durch Vernadelung

Title (fr)

Aiguille pour la consolidation mécanique des non-tissés par aiguilletage

Publication

EP 1132513 B1 20031015 (DE)

Application

EP 01103937 A 20010216

Priority

DE 20004311 U 20000308

Abstract (en)

[origin: EP1132513A2] A needle for needle punching has forward (6) and backward (7) facing barbs near the tip (2). On a triangular section shaft the barbs are behind each other with a raised section (8) between them. On a cruciform shaft they can alternate from side to side. The shaft can also be of other polygonal section.

IPC 1-7

D04H 18/00

IPC 8 full level

D04H 18/00 (2006.01); **D04H 18/02** (2012.01)

CPC (source: EP)

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Cited by

CN103388243A; CN113430723A; CN113529329A; US7845055B1

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EP 1132513 A2 20010912; EP 1132513 A3 20020904; EP 1132513 B1 20031015; AT E252169 T1 20031115; DE 20004311 U1 20010719; DE 50100772 D1 20031120

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