

Title (en)
Needle for needle punching of textile fabrics

Title (de)
Nadel zur Vernadelung von textilen Flächegebilden

Title (fr)
Aiguille pour l' aigilletage de textiles

Publication
EP 1624099 B1 20080402 (DE)

Application
EP 05014810 A 20050708

Priority
DE 102004037716 A 20040804

Abstract (en)
[origin: EP1624099A1] A needle for surface finishing textiles has a working section (5) with at least three edges, spaced at most by 0.35 mm from each other, e.g. three or four edges or star-shaped, corresponding to at least 46 gauge. The edges have barbs (24, 25, 26) less than 0.02 mm deep. The barbs can be spaced axially in pairs or spaced along a spiral with a pitch twice the length of the barb. The edges and the barbs are rounded to a specified degree related to the dimensions of the cross-section. The end of the needle tapers towards a point (17), which has no sharp edges.

IPC 8 full level
D04H 18/02 (2012.01)

CPC (source: EP KR US)
D04B 15/00 (2013.01 - KR); **D04H 18/02** (2013.01 - EP KR US); **D05B 85/00** (2013.01 - KR)

Cited by
CN103710886A; CN103710885A; CN115087772A

Designated contracting state (EPC)
DE ES FR GB IT TR

DOCDB simple family (publication)
EP 1624099 A1 20060208; EP 1624099 B1 20080402; CN 100516336 C 20090722; CN 1734000 A 20060215; DE 102004037716 A1 20060223; DE 102004037716 B4 20090402; DE 502005003537 D1 20080515; ES 2305953 T3 20081101; JP 2006045759 A 20060216; JP 4190524 B2 20081203; KR 101085373 B1 20111122; KR 20060049074 A 20060518; US 2006026810 A1 20060209; US 7114226 B2 20061003

DOCDB simple family (application)
EP 05014810 A 20050708; CN 200510098080 A 20050803; DE 102004037716 A 20040804; DE 502005003537 T 20050708; ES 05014810 T 20050708; JP 2005225410 A 20050803; KR 20050071094 A 20050803; US 19455205 A 20050802