

Title (en)

Method and device for melting ends of thermoplastic bristle-bundels

Title (de)

Verfahren und Vorrichtung zum Verschmelzen der axialen Enden von gebündelten Fasern aus thermoplastischem Kunststoff

Title (fr)

Procédé et dispositif pour la fusion des extrémités des faisceaux de poils thermoplastique

Publication

EP 1839528 B1 20110713 (DE)

Application

EP 07000601 A 20070112

Priority

DE 102006011671 A 20060314

Abstract (en)

[origin: EP1839528A2] The procedure for the production of toothbrushes by fusing the axial end of bundled fibers from thermoplastic plastic, comprises contacting fiber ends with a heated area and arranging a foil between the fiber ends and the opposite surface of a heated stamp. The foil is made up of heat-resistance material with anti-adherent characteristics and is moved by a transport mechanism, which pushes the foil after certain number of operation cycle in such a manner that the used foil is replaced by unused foil. The foil is separated by a forced movement of the fused fiber ends. The procedure for the production of toothbrushes by fusing the axial end of bundled fibers from thermoplastic plastic, comprises contacting fiber ends with a heated area and arranging a foil between the fiber ends and the opposite surface of a heated stamp. The foil is made up of heat-resistance material with anti-adherent characteristics and is moved by a transport mechanism, which pushes the foil after certain number of operation cycle in such a manner that the used foil is replaced by unused foil. The foil is separated by a forced movement of the fused fiber ends. In each operation cycle, the stamp is heated and subsequently cooled off. The stamp is held on constant working temperature for fusing the fiber ends. Independent claims are included for: (1) a device for fusing the axial end of bundled fibers; and (2) a procedure for mounting the axial end of bundled fibers at carrier plates.

IPC 8 full level

A46D 1/08 (2006.01); **A46B 3/04** (2006.01); **A46B 3/06** (2006.01)

CPC (source: EP)

A46B 3/06 (2013.01); **A46D 3/045** (2013.01)

Cited by

DE102019104826B3; FR2955017A1; CN102821649A; WO2011116935A1

Designated contracting state (EPC)

BE CH DE ES IT LI

DOCDB simple family (publication)

EP 1839528 A2 20071003; **EP 1839528 A3 20071226**; **EP 1839528 B1 20110713**; DE 102006011671 A1 20070920; EP 1985200 A1 20081029; EP 1985200 B1 20110706

DOCDB simple family (application)

EP 07000601 A 20070112; DE 102006011671 A 20060314; EP 08014285 A 20070112