

Title (en)

NIB FOR WRITING AND METHODS FOR TREATING A LONGITUDINAL ELEMENT FROM WHICH A WRITING NIB OF THIS TYPE IS TO BE FORMED

Title (de)

SCHREIBSPITZE UND VERFAHREN ZUR BEHANDLUNG EINES LÄNGLICHEN ELEMENTES FÜR DIE HERSTELLUNG EINER SOLCHEN SCHREIBSPITZE

Title (fr)

POINTE D'ECRITURE ET PROCEDES DE TRAITEMENT D'UN ELEMENT LONGIFORME DESTINE A FORMER UNE TELLE POINTE D'ECRITURE

Publication

EP 1180073 B1 20030212 (FR)

Application

EP 00929613 A 20000512

Priority

- FR 0001294 W 20000512
- FR 9906312 A 19990514

Abstract (en)

[origin: FR2793426A1] The nib construction and method of its formation are new. The writing nib consists of section of longitudinal element made of high porosity material, with at least one end configured as writing head. The pores and/or capillaries of porous material are blocked to the limited thickness (e) (preferably 0.01-1 mm) at the longitudinal outer periphery of the element, with exception of the end forming writing head. Longitudinal element has circular cross-section of diameter 2-15 mm. The nib also contains plugging agent which plugs the pores and/or capillaries to the thickness (e). Longitudinal element can be made of acrylic or polyester fibres, or of sintered microbeads, and in the last case the pores are blocked by local thermo-fusion of microbeads to the thickness (e). Independent claims are also included for 1) process of treatment of longitudinal element of high porosity material consisting of acrylic or polyester fibres, to form writing nib as claimed, comprising continuous impregnation of element in bath containing plugging agent (which is inert in relation to components of ink) under such conditions of viscosity, impregnation time, surface tension and concentration as to ensure diffusion of plugging bath into longitudinal element to the limited thickness (e), followed by hardening of plugging agent preferably by thermal treatment of element; 2) writing nib obtained by sectioning and machining of high porosity longitudinal element treated as claimed; and 3) process of treatment of longitudinal element consisting of sintered microbeads, where the section is obtained by molding and sintering of microbeads and then subjected to peripheral longitudinal thermal shock (preferably at 200-300 deg C for 1-10 seconds), with exception of the end forming writing head, to produce localized thermo-fusion of microbeads to the thickness (e).

IPC 1-7

B43K 1/12

IPC 8 full level

B29C 70/06 (2006.01); **B43K 1/00** (2006.01); **B43K 1/12** (2006.01)

CPC (source: EP US)

B43K 1/12 (2013.01 - EP US)

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

FR 2793426 A1 20001117; FR 2793426 B1 20010817; AU 4763500 A 20001205; AU 762571 B2 20030626; BR 0010415 A 20020213; BR 0010415 B1 20081118; CA 2370903 A1 20001123; CA 2370903 C 20080325; CN 1160204 C 20040804; CN 1351546 A 20020529; DE 60001404 D1 20030320; DE 60001404 T2 20040115; EP 1180073 A1 20020220; EP 1180073 B1 20030212; ES 2192176 T3 20031001; JP 2002544025 A 20021224; JP 4928669 B2 20120509; MX PA01011540 A 20020604; US 6893181 B1 20050517; WO 0069654 A1 20001123

DOCDB simple family (application)

FR 9906312 A 19990514; AU 4763500 A 20000512; BR 0010415 A 20000512; CA 2370903 A 20000512; CN 00807567 A 20000512; DE 60001404 T 20000512; EP 00929613 A 20000512; ES 00929613 T 20000512; FR 0001294 W 20000512; JP 2000618094 A 20000512; MX PA01011540 A 20000512; US 988502 A 20020122