Title (en)

ABRASIVE MATERIAL HAVING ABRASIVE LAYER OF THREE-DIMENSIONAL STRUCTURE

Title (de)

SCHLEIFMATERIAL MIT EINER EINE DREIDIMENSIONALE STRUKTUR AUFWEISENDEN SCHLEIFSCHICHT

Title (fr)

ABRASIF COMPORTANT UNE COUCHE ABRASIVE DE STRUCTURE TRIDIMENSIONNELLE

Publication

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Application

EP 00989503 A 20001221

Priority

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Abstract (en)

[origin: WO0145903A1] To provide an abrasive material which is excellent in loading resistance and durability, allows no attachments to attach to an abraded surface even when the end surface of the optical fiber is abraded, and is particularly suited for use in abrading a hard material such as an end surface of an optical fiber connector effectively and smoothly into a predetermined shape. The present invention provides an abrasive material for abrading an end surface of an optical fiber connector into a predetermined shape, the abrasive material having a base material (101) and an abrasive layer (102) disposed on the base material, the abrasive layer having a top layer (105) comprising an abrasive composite containing abrasive grains and a binder and a foot portion (106) comprising a binder in the absence of abrasive particles, the abrasive layer having a three-dimensional structure constructed with a plurality of regularly arranged three-dimensional elements (104) having a predetermined shape. Further, the present invention provides a method for producing an abrasive material having an abrasive layer of a three-dimensional structure, the method comprising the steps of: (1) filling a mold sheet having a plurality of regularly arranged recesses, with an abrasive material coating solution containing abrasive grains, a binder, a solvent, to a predetermined depth; (2) removing the solvent from the abrasive material coating solution in the recesses by evaporation; (3) filling the recesses further with a binder; (4) laminating a base material on the mold sheet to bond the binder to the base material; and (5) hardening the binder.

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Citation (search report)

See references of WO 0145903A1

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