

Title (en)
RAZOR BLADE AND PROCESS FOR FORMING A RAZOR BLADE

Title (de)
RASIERKLINGE UND VERFAHREN ZUR HERSTELLUNG EINER RASIERKLINGE

Title (fr)
LAME DE RASOIR ET PROCEDE DE FABRICATION D'UN LAME DE RASOIR

Publication
EP 0591339 B1 19980812 (EN)

Application
EP 92913506 A 19920611

Priority

- US 9204932 W 19920611
- US 71979391 A 19910624
- US 79242791 A 19911115

Abstract (en)
[origin: WO9300204A1] A razor blade includes a substrate (50) with a wedge-shaped edge at a distance of forty micrometers from the sharpened tip (52), and a layer of diamond or diamond-like material (60) defined by facets (66, 68) that have an included angle of less than seventeen degrees that has a thickness of at least twelve hundred angstroms from the sharpened tip (52) of said substrate (50) to a distance of forty micrometer from the sharpened tip (52), and an ultimate tip defined by facets (62, 64) that have lengths of at least about 0.1 micrometer and define an included angle of at least sixty degrees, and that defines a tip radius of less than about 400 angstroms, an aspect ratio in the range of 1:1-3:1, a hardness of at least thirteen gigapascals and an L5 wet wool felt cutter force of less than 0.8 kilogram.

IPC 1-7
B26B 21/54; C23C 14/32

IPC 8 full level
B26B 21/60 (2006.01); **C23C 14/06** (2006.01)

CPC (source: EP)
B26B 21/60 (2013.01)

Cited by
US6327784B1; WO2004018166A1; US6866894B2; US6684513B1; US6962000B2; WO2023225241A1; WO2023225242A1; WO2021211812A1; WO2021211810A2; WO2023225240A1; WO2023225239A1; US8011104B2; US8347512B2; US8640344B2; WO2021211815A1; EP2731760B1

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
WO 9300204 A1 19930107; AT E169547 T1 19980815; AU 2192792 A 19930125; AU 667816 B2 19960418; CA 2111343 A1 19930107; CA 2111343 C 19980728; CN 1039793 C 19980916; CN 1068990 A 19930217; CZ 286598 B6 20000517; CZ 289093 A3 19950412; DE 69226640 D1 19980917; DE 69226640 T2 19990318; DK 0591339 T3 19990215; EG 19616 A 19950727; EP 0591339 A1 19940413; EP 0591339 A4 19940831; EP 0591339 B1 19980812; ES 2118821 T3 19981001; JP 3722829 B2 20051130; JP H07503377 A 19950413; KR 100245979 B1 20000501; MA 22561 A1 19921231; MX 9203147 A 19930201; MY 110072 A 19971231; PL 170815 B1 19970131; TR 27155 A 19941109; TW 215423 B 19931101

DOCDB simple family (application)
US 9204932 W 19920611; AT 92913506 T 19920611; AU 2192792 A 19920611; CA 2111343 A 19920611; CN 92105085 A 19920624; CZ 289093 A 19920611; DE 69226640 T 19920611; DK 92913506 T 19920611; EG 33092 A 19920623; EP 92913506 A 19920611; ES 92913506 T 19920611; JP 50151393 A 19920611; KR 930704033 A 19931223; MA 22851 A 19920622; MX 9203147 A 19920623; MY PI19921025 A 19920616; PL 30188792 A 19920611; TR 58192 A 19920623; TW 81104972 A 19920624