

Title (en)
CERAMIC MATRIX COMPOSITE CUTTING BLADE FOR WOOD MACHINING AND THE METHOD OF MANUFACTURING THE CUTTING BLADE

Title (de)
SCHNEIDKLINGE AUS KERAMIKMATRIXVERBUNDWERKSTOFF ZUR MASCHINELLEN BEARBEITUNG VON HOLZ UND VERFAHREN ZUR HERSTELLUNG DER SCHNEIDKLINGE

Title (fr)
LAME DE DÉCOUPAGE EN MATÉRIAU COMPOSITE DE MATRICE DE CÉRAMIQUE POUR USINAGE DU BOIS ET SON PROCÉDÉ DE FABRICATION

Publication
EP 1931606 A1 20080618 (EN)

Application
EP 06790918 A 20061002

Priority
• CH 2006000527 W 20061002
• EP 05405567 A 20051003
• EP 06790918 A 20061002

Abstract (en)
[origin: EP1770075A1] A Cutting blade for wood machining consisting of a matrix composite comprising silicon nitride, 10 wt% to 50 wt% silicon carbide or titanium nitride, and 4 wt% to 10 wt% lanthana-yttria garnet or yttria-alumina garnet has been found to have a long edge life. A method of manufacturing comprises the steps of mixing a powder of said materials in a liquid, adding a binder, drying the mixture, sieving the dried mixture, sintering the mixture under pressure, hot isostatically pressing, grinding, polishing and annealing.

IPC 8 full level
B23B 27/14 (2006.01); **C04B 35/584** (2006.01); **C04B 35/593** (2006.01)

CPC (source: EP)
B23B 27/148 (2013.01); **C04B 35/584** (2013.01); **C04B 35/593** (2013.01); **C04B 35/6303** (2013.01); **C04B 2235/3222** (2013.01); **C04B 2235/3224** (2013.01); **C04B 2235/3225** (2013.01); **C04B 2235/3227** (2013.01); **C04B 2235/3826** (2013.01); **C04B 2235/3886** (2013.01); **C04B 2235/80** (2013.01)

Citation (search report)
See references of WO 2007038889A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1770075 A1 20070404; EP 1931606 A1 20080618; WO 2007038889 A1 20070412

DOCDB simple family (application)
EP 05405567 A 20051003; CH 2006000527 W 20061002; EP 06790918 A 20061002