

Title (en)

MULTILAYERED PVD COATED CUTTING TOOL

Title (de)

MEHRLAGIG PVD-BESCHICHTETES SCHNEIDWERKZEUG

Title (fr)

OUTIL DE COUPE DOTE D'UN REVETEMENT MULTICOUCHE EN DPPV

Publication

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Application

EP 98962794 A 19981209

Priority

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- SE 9704630 A 19971210

Abstract (en)

[origin: WO9929920A1] The present invention relates to a cutting tool comprising a body (1) of a sintered cemented carbide or cermet, ceramic or high speed steel on which, at least on the functioning parts of the surface of the body, a thin, adherent, hard and wear resistant coating (2) is applied. The coating comprises a laminar structure of refractory compounds in a polycrystalline, repetitive form: (MLX/Al₂O₃) lambda (MLX/Al₂O₃) lambda / (MLX/Al₂O₃) lambda / (MLX/Al₂O₃) lambda / ... where the alternating sublayers consist of metal nitrides (or carbides) and crystalline alumina (4) of the alpha(alpha)- and/or the gamma(gamma) phase, preferably of metal nitrides and crystalline alumina of the gamma phase. The metal elements in the layers MLX (3) are selected from Ti, Nb, Hf, V, Ta, Mo, Zr, Cr, W and Al. The repeat period lambda (5) is essentially constant through the entire multilayered structure, and larger than 3 nm but smaller than 100 nm. The total thickness of said multilayered coating is larger than 0.5 mu m but smaller than 20 mu m.

IPC 1-7

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IPC 8 full level

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