

Title (en)

Ti(C,N)-(Ti,Nb,W)(C,N)-Co alloy for super-finishing turning cutting tool applications

Title (de)

Ti(C,N)-(Ti,Nb,W)(C,N)-Co Legierung für Drehwerkzeuge zur Feinstbearbeitung in spanabhebender Fertigung

Title (fr)

Ti(C,N)-(Ti,Nb,W)(C,N)-Co pour outils de coupe pour superfinition en tournage

Publication

**EP 1422306 B1 20090520 (EN)**

Application

**EP 03445110 A 20031010**

Priority

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Abstract (en)

[origin: EP1422306A2] The present invention relates to a titanium based carbonitride alloy containing Ti, Nb, W, C, N and Co for metal cutting applications, in particularly superfinishing turning operations. The alloy contains in addition to Ti 3-<9 at% Co with only impurity levels of Ni and Fe, 2-<4 at% Nb, 3-8 at% W and has a C/(C+N) ratio of 0.50-0.75. The amount of undissolved Ti(C,N) cores (A) should be kept between 26 and 37 vol% of the hard constituents, the balance being one or more complex carbonitrides (B) containing Ti, Nb and W. The invented alloy is particularly useful for superfinishing of steel and cast iron.

IPC 8 full level

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