

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

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Application

**EP 03445110 A 20031010**

Priority

SE 0203407 A 20021119

Abstract (en)

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.

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