

Title (en)  
Titanium carbide/tungsten boride coatings

Title (de)  
Titankarbid/Wolframborid-Überzüge

Title (fr)  
Revêtements en carbure de titane/borure de tungstène

Publication  
**EP 1077272 A1 20010221 (EN)**

Application  
**EP 99116068 A 19990816**

Priority  
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Abstract (en)  
A family of titanium carbide/tungsten boride coatings having excellent wear and corrosion resistance is disclosed. The coatings comprise hard, ultrafine, titanium carbide particles and tungsten boride precipitates dispersed in a metal matrix, the two phases constituting from about 30 to about 80 volume percent of the coating, the balance being metal matrix. The metal matrix contains nickel, cobalt and/or iron. The coatings may be prepared by depositing a mechanically blended powder mixture composed of separate components including a first component containing tungsten carbide and a second component containing boron and at least one metal selected from the group consisting of nickel, cobalt and iron, the powder mixture including titanium in the first or second component or in a separate third component, at least one of the first, second or third components having a melting point below about 1200 DEG C, and then heat treating the as-deposited coating. <IMAGE>

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**C23C 4/06**; **C23C 4/18**

IPC 8 full level  
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CPC (source: EP)  
**C23C 4/06** (2013.01); **C23C 4/18** (2013.01)

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