

Title (en)  
Wear-resistant material

Title (de)  
Verschleißbeständiger Werkstoff

Title (fr)  
Matière première résistant à l'usure

Publication  
**EP 2253398 B1 20151223 (DE)**

Application  
**EP 09450242 A 20091228**

Priority  
AT 522009 A 20090114

Abstract (en)  
[origin: AT507215A4] A wear-resistant material comprises (in weight%) carbon (0.3-3.5), nitrogen (0.05-4), oxygen (0.002-0.25), niobium/tantalum (3-18), and remainder of metallic elements and impurities. A microstructure of the material comprises a metal matrix and hard phases embedded in the matrix. The hard phases comprise carbide, nitride, carbonitride and/or oxide carbonitride, where hard phases have diameter of 0.2-50  $\mu$  m. An independent claim is also included for a method for producing a wear-resistant material.

IPC 8 full level  
**B22F 9/08** (2006.01); **C22C 33/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01)

CPC (source: EP US)  
**B22F 9/082** (2013.01 - EP US); **C21D 1/26** (2013.01 - EP US); **C22C 33/0228** (2013.01 - EP US); **C22C 33/0292** (2013.01 - EP US); **C22C 38/001** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C23C 8/28** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US); **C21D 2211/004** (2013.01 - EP US); **C21D 2211/008** (2013.01 - EP US); **Y10T 428/25** (2015.01 - US)

Cited by  
DE102016122673A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**AT 507215 A4 20100315**; **AT 507215 B1 20100315**; BR PI1000065 A2 20110329; EP 2253398 A1 20101124; EP 2253398 B1 20151223; EP 2374560 A1 20111012; US 2010192476 A1 20100805; US 8623108 B2 20140107

DOCDB simple family (application)  
**AT 522009 A 20090114**; BR PI1000065 A 20100114; EP 09450242 A 20091228; EP 11004405 A 20091228; US 68660910 A 20100113