

Title (en)  
Chromium steel

Title (de)  
Chrom-Stahllegierung

Title (fr)  
Acier au chrome

Publication  
**EP 1306457 B1 20071205 (DE)**

Application  
**EP 02023592 A 20021023**

Priority  
DE 10152293 A 20011023

Abstract (en)  
[origin: EP1306457A2] Chromium/steel alloy comprises 10.5-20% chromium, 0.2-9% nickel, 0.1-3% manganese, 0.1-1.5% silicon, 0.01-2.0% molybdenum, 0.05-0.45% carbon, 0.02-0.15% nitrogen, 0.3-0.8% copper, 0.002-0.05% aluminum, 0.003-0.1% titanium, 0.003-0.1% vanadium, 0.001-0.05% niobium, 0.01-0.2% titanium+vanadium+niobium, up to 0.006% boron, and the balance of iron to satisfy the equation:  $10x(\%Ti + \%V + \%Nb) = Ax(\%C + \%N)$   $1 \leq A \leq 7$ . An Independent claim is also included for a process for annealing the above alloy for 15 minutes to 2 hours at 180-480 degrees C. Preferably the alloy contains 16-18% chromium, 6-8% nickel, 0.5-1.5% manganese, 0.3-1.5% silicon, 0.4-1% molybdenum, 0.1-0.3% carbon, 0.05-0.1% nitrogen, 0.002-0.006% boron, 0.003-0.1% titanium, 0.003-0.1% vanadium and 0.001-0.05% niobium.

IPC 8 full level  
**C22C 38/40** (2006.01); **C21D 1/30** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/00** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01); **C21D 6/00** (2006.01); **C21D 9/00** (2006.01); **C21D 9/02** (2006.01)

CPC (source: EP)  
**C21D 1/30** (2013.01); **C21D 9/46** (2013.01); **C22C 38/001** (2013.01); **C22C 38/42** (2013.01); **C22C 38/44** (2013.01); **C22C 38/46** (2013.01); **C22C 38/48** (2013.01); **C22C 38/50** (2013.01); **C22C 38/54** (2013.01); **C21D 6/004** (2013.01); **C21D 9/0025** (2013.01); **C21D 9/02** (2013.01)

Cited by  
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