

Title (en)  
Ferritic, niobium-stabilised 19% chromium stainless steel

Title (de)  
Ferritischer, Niobium-stablisierter 19% Chrom-Edelstahl

Title (fr)  
Acier inoxydable ferritique dit à 19% de chrome stabilisé au niobium

Publication  
**EP 1818421 A1 20070815 (FR)**

Application  
**EP 06290231 A 20060208**

Priority  
EP 06290231 A 20060208

Abstract (en)  
The stainless steel contains the following elements in wt%: carbon up to 0.03; manganese up to 1; silicon 0.3 - 1; sulfur up to 0.01; phosphorous up to 0.04; chrome 18 - 22; nickel 0.5; molybdenum up to 2.5; copper up to 0.5; titanium up to 0.02; zirconium up to 0.02; aluminum up to 0.02; niobium 0.2 - 1; vanadium up to 0.2; nitrogen up to 0.03; cobalt 0.005 - 0.05; tin up to 0.05; the rest being made up of iron and unavoidable impurities. The steel is poured as a semi-finished product, heated to over 1000 degrees C, hot and cold rolled and reheated to a temperature and for a duration that produce a completely recrystallised structure having a ferritic grain size of between 10 and 60 micrometres.

Abstract (fr)  
Acier inoxydable ferritique, dit à 19%Cr stabilisé au niobium, dont la composition comprend, les teneurs étant exprimées en poids : C # 0,03%, Mn#1%, 0, 3#S#1%, S#0,01%, P#0,04%, 18%# Cr #22%. Ni #0,5%, Mo #2,5%, Cu#0,5%, Ti#0,02%, Zr#0,02%, Al#0,02%, 0,2%#Nb#1%, V#0,2%, N #0,03%, 0,005% #Co#0,05%, Sn#0,05%., étant entendu que : Ti + Al + Zr # 0,030%, Cr + 5 Si #¥ 20%, Mo+3 (Nb- 7C- 7N) #¥ 1,5%, V +10 Ti #¥ 0,06%, le reste de la composition étant constitué de fer et d'impuretés inévitables résultant de l'élaboration

IPC 8 full level  
**C22C 38/26** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/28** (2006.01); **C22C 38/30** (2006.01)

CPC (source: EP)  
**C21D 6/002** (2013.01); **C21D 8/0273** (2013.01); **C21D 9/0068** (2013.01); **C22C 38/001** (2013.01); **C22C 38/008** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/20** (2013.01); **C22C 38/22** (2013.01); **C22C 38/24** (2013.01); **C22C 38/26** (2013.01); **C22C 38/30** (2013.01); **C22C 38/44** (2013.01); **C22C 38/46** (2013.01); **C22C 38/48** (2013.01); **C22C 38/52** (2013.01); **C21D 2211/004** (2013.01); **C21D 2211/005** (2013.01); **F01N 13/10** (2013.01); **F01N 13/16** (2013.01); **F01N 2530/04** (2013.01)

Citation (search report)  
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Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1818421 A1 20070815**; AT E417134 T1 20081215; DE 602007000326 D1 20090122; DK 1818422 T3 20090223; DK 1818422 T4 20121029; EP 1818422 A1 20070815; EP 1818422 B1 20081210; EP 1818422 B2 20120718; ES 2317629 T3 20090416; ES 2317629 T5 20121226; PT 1818422 E 20090130; SI 1818422 T1 20090430; SI 1818422 T2 20121130

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**EP 06290231 A 20060208**; AT 07290039 T 20070111; DE 602007000326 T 20070111; DK 07290039 T 20070111; EP 07290039 A 20070111; ES 07290039 T 20070111; PT 07290039 T 20070111; SI 200730015 T 20070111