

Title (en)

Ferritic stainless steel with 19% of chromium stabilised with niobium

Title (de)

Ferritischer Edelstahl mit 19 % Chrom, der mit Niob stabilisiert ist

Title (fr)

Acier inoxydable ferritique dit a 19% de chrome stabilisé au niobium

Publication

**EP 1818422 B2 20120718 (FR)**

Application

**EP 07290039 A 20070111**

Priority

- EP 06290231 A 20060208
- EP 07290039 A 20070111

Abstract (en)

[origin: EP1818421A1] 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.

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 (opposition)

Opponent :

- JP H04280948 A 19921006 - NIPPON YAKIN KOGYO CO LTD
- JP H04224657 A 19920813 - KAWASAKI STEEL CO
- J.H. Schmitt et al: "Some Recent Trends in Niobium Ferritic Stainless Steels", Proceedings of Symposium at the occasion of the 30 years anniversary of Niobium Products Co. GmbH, Düsseldorf, 20-05-2005.

Cited by

US2017275723A1; CN114364820A; US11384405B2; WO2014033372A1; US10752973B2; EP3670692A1; WO2020127275A1

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DOCDB simple family (application)

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