

Title (en)  
Iron-chromium alloy with high corrosion resistance

Title (de)  
Eisen-Chrom-Legierung mit hoher Korrosionsbeständigkeit

Title (fr)  
Alliage fer-chrome à haute résistance à la corrosion

Publication  
**EP 0570985 B1 20010816 (EN)**

Application  
**EP 93108298 A 19930521**

Priority  

- JP 12862792 A 19920521
- JP 13244692 A 19920525
- JP 13254992 A 19920525
- JP 13677892 A 19920528

Abstract (en)  
[origin: EP0570985A1] A corrosion-resistant Fe-Cr alloy for use in corrosive atmosphere near a seashore or in a chemical plant has a composition containing approximately not less than 5 wt% of Cr, not more than 100 ppm of C, N, O and S in total, from 0.01 to 1.0 wt% of P and the balance substantially Fe and impurities. The alloy may further contain not more than about 1.0 wt% of Al, not more than about 1.0 wt% of Si and not more than about 1.0 wt% of Mn, and at least one element selected from the group consisting of Ti, Nb, V, Zr, Ta, W and B in an amount which approximately meets the following condition (1). It is also possible to include at least one element selected from the group consisting of Ni, Co and Cu in an approximate amount which meets the following condition (2), and/or at least one element selected from the group consisting of Al, Si and Mn in an approximate amount which meets the following condition (3):  $0.01 \text{ wt\%} \leq \text{Ti} + \text{Nb} + \text{Zr} + \text{V} + \text{Ta} + \text{W} + 20\text{B} \leq 1.0 \text{ wt\%}$  (1)  $> 0.01 \text{ wt\%} \leq \text{Ni} + \text{Co} + 2\text{Cu} \leq 6 \text{ wt\%}$  (2)  $> 1.0 \text{ wt\%} \leq 3\text{Al} + 2\text{Si} + \text{Mn} \leq 50 \text{ wt\%}$  (3) <IMAGE>

IPC 1-7  
**C22C 38/18**

IPC 8 full level  
**C22C 38/18** (2006.01)

CPC (source: EP KR)  
**C22C 38/18** (2013.01 - EP KR); **C22C 38/20** (2013.01 - KR); **C22C 38/22** (2013.01 - KR); **C22C 38/30** (2013.01 - KR); **C22C 38/40** (2013.01 - KR)

Citation (examination)  
US 4360381 A 19821123 - TARUTANI YOSHIO, et al

Cited by  
EP1160347A1; EP0625584A1; DE19882827B4; EP0894874A1; US6419878B2; US6207103B1; KR100503548B1

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 0570985 A1 19931124**; **EP 0570985 B1 20010816**; DE 69330580 D1 20010920; DE 69330580 T2 20011129; KR 940005823 A 19940322; KR 960005601 B1 19960426

DOCDB simple family (application)  
**EP 93108298 A 19930521**; DE 69330580 T 19930521; KR 930008747 A 19930521