

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

Designated contracting state (EPC)
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