

Title (en)

High strength low thermal expansion alloy

Title (de)

Hochfeste Legierung mit niedrigem Ausdehnungskoeffizient

Title (fr)

Alliage à haute résistance et à coefficient d'expansion thermique faible

Publication

**EP 0765950 B2 20100120 (EN)**

Application

**EP 96306099 A 19960821**

Priority

- US 51967895 A 19950825
- US 69648796 A 19960814

Abstract (en)

[origin: EP0765950A1] The alloy of the invention provides a low coefficient of thermal expansion alloy having a CTE of about  $4.9 \times 10^{-6}$  m/m/ DEG C or less at 204 DEG C and a relatively high strength. The alloy contains about 40.5 to about 48 nickel, about 2 to about 3.7 niobium. about 0.75 to about 2 titanium, about 0 to about 1 aluminum, about 3.7 or less total niobium plus tantalum and a balance of iron and incidental impurities. Alloys of the invention may be aged to a Rockwell C hardness of at least about 30.

IPC 8 full level

**C22C 30/00** (2006.01); **C22C 38/00** (2006.01); **C22C 38/08** (2006.01); **C22C 38/14** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP)

**C22C 38/08** (2013.01)

Citation (opposition)

Opponent :

- EP 0482889 A2 19920429 - INCO ALLOYS INT [US]
- JP H04180542 A 19920626 - HITACHI METALS LTD
- JP H04202642 A 19920723 - NIPPON KOKAN KK

Designated contracting state (EPC)

DE ES FR GB

DOCDB simple family (publication)

**EP 0765950 A1 19970402**; **EP 0765950 B1 20011017**; **EP 0765950 B2 20100120**; DE 69615977 D1 20011122; DE 69615977 T2 20020404; DE 69615977 T3 20100506; ES 2161983 T3 20011216; JP H09165653 A 19970624

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