

Title (en)
HIGH TEMPERATURE OXIDATION RESISTANT DUCTILE NICKEL ALLOY

Title (de)
HOCHWARMFESTE, OXIDATIONSBESTÄNDIGE KNETBARE NICKELLEGIERUNG

Title (fr)
SUPERALLIAGE DE NICKEL MALAXABLE ET STABLE A L'OXYDATION

Publication
EP 1047801 B1 20011219 (DE)

Application
EP 98954347 A 19981005

Priority
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• EP 9806335 W 19981005

Abstract (en)
[origin: DE19753539A1] Ductile austenitic nickel alloy for objects with a high resistance to isothermal and cyclic high temperature oxidation, high heat resistance and long-time rupture strength up to 1 200 DEG C, especially in the 700-900 DEG C temperature range. The inventive alloy consists of 0.20-0.40 wt. % carbon, 25-30 wt. % chrome, 7.5-8.5 wt. % tantalum, 2.3-3.00 wt. % aluminium, 0.01-0.15 wt. % yttrium, 0.01- 0.20 wt. % titanium, 0.01-0.20 wt. % niobium, 0.01-0.15 zircon, 0.001-0.010 wt. % magnesium, 0.001-0.010 wt. % calcium, max. 0.030 wt. % nitrogen, max 0.50 wt. % silicon, max 0.25 wt. % manganese, max 0.020 wt. % phosphorous, max. 0.010 wt. % sulphur. The remainder includes nickel and unavoidable impurities due to smelting.

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