

Title (en)

Compacted and consolidated aluminium-based alloy material and production process thereof

Title (de)

Verdichtete und verfestigte Werkstoffe auf Aluminiumbasis und Verfahren zur Herstellung dieser Werkstoffe

Title (fr)

Matériaux comprimés et stabilisés à base d'aluminium et procédé pour leur fabrication

Publication

EP 0524527 B1 19971119 (EN)

Application

EP 92111993 A 19920714

Priority

JP 18106591 A 19910722

Abstract (en)

[origin: EP0524527A1] A compacted and consolidated aluminum-based alloy material is obtained by compacting and consolidating a quench-solidified material whose composition is represented by the general formula: $AlaNibXc$ wherein X is one or more elements selected from La and Ce or an Mm (mischmetal) and a, b and c are, in atom percent, $87.5 \leq a \leq 92.5$, $5 \leq b \leq 10$, and $0.5 \leq c \leq 2.5$. According to its production process, powder or flakes obtained by quench solidification are compacted, followed by compression, forming and consolidation by conventional plastic working. The consolidated material has elongation sufficient to withstand secondary working even when the secondary working is applied. Moreover, the material can retain excellent properties of its raw material as they are. The consolidated material having such advantages can be provided by the simple process. <IMAGE>

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