

Title (en)

HEAT TREATMENT PROCESS AND PRESSURE-CAST ALUMINIUM ALLOY PART

Title (de)

WÄRMEBEHANDLUNGSVERFAHREN UND DRUCKGEGOSSENES ALUMINIUMLEGIERUNGSTEIL

Title (fr)

PROCEDE DE TRAITEMENT THERMIQUE ET PIECE EN ALLIAGE D'ALUMINIUM COULEE SOUS-PRESSION

Publication

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Application

**EP 10716561 A 20100322**

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Abstract (en)

[origin: WO2010112725A1] The invention relates to a process for the heat treatment of a pressure-cast aluminium alloy part, comprising the following steps: the part undergoes a solution treatment in a furnace preheated to a temperature below the solidus of the alloy; the part is tempered and the tempered part is annealed; in the solution treatment step, the part is maintained at an isothermal temperature for a time of at least 10 minutes followed by a sufficiently rapid temperature rise thanks to a specific furnace having a heat exchange coefficient higher than that of a conventional air furnace. The invention makes it possible to obtain mechanical properties of aluminium alloy parts approaching those of other materials, such as steel or cast iron.

IPC 8 full level

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