

Title (en)

METHOD FOR THE HEAT TREATMENT OF STRUCTURE CASTINGS FROM AN ALUMINIUM ALLOY TO BE USED THEREFOR

Title (de)

VERFAHREN ZUR WÄRMEBEHANDLUNG VON STRUKTURGUSSTEILEN AUS EINER DAFÜR ZU VERWENDENDEN ALUMINIUMLEGIERUNG

Title (fr)

PROCEDE DE TRAITEMENT THERMIQUE DE PIECES STRUCTURALES MOULEES CONSTITUEES D'UN ALLIAGE D'ALUMINIUM DESTINE A ETRE UTILISE A CET EFFET

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Application

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Abstract (en)

[origin: WO0123633A2] The invention relates to a method for the heat treatment of structure castings from an aluminium alloy. The inventive method comprises the steps: laying the structure casting onto a product receiving device that embraces the contours of said casting, heating up to 490 DEG C in approximately 30 minutes, maintaining the temperature of 490 DEG C for between 90 and 120 minutes, chilling in air from 490 DEG C to approximately 100 DEG C for approximately 4 minutes and optionally and subsequently chilling in water, heating up to 250 DEG C in approximately 15 minutes, maintaining the temperature of 250 DEG C for between 30 and 120 minutes, chilling in air to 40 DEG C and optionally and subsequently chilling in water. The invention also relates to a light-metal alloy for the use in said method. Said alloy has the following composition: Si: 2-11.5 %, Fe: 0.15-0.4 %, Mg: 0.3-5.5 %, Cu: <0.02 %, Mn: 0.4-0.8 %, Ti: 0.1-0.2 %, the rest being aluminium and trace elements, whereby the alloys having a high content of silicon are provided with low contents of magnesium and vice versa.

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