

Title (en)

METHOD OF MANUFACTURING AN AREAL COMPONENT OF AN AGE-HARDENABLE ALUMINIUM ALLOY, CORRESPONDING PROCESS LINE AND AREAL COMPONENT

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES FLÄCHIGEN BAUTEILS AUS EINER AUSHÄRTBAREN ALUMINIUMLEGIERUNG, ENTSPRECHENDE PRODUKTIONSLINIE UND FLÄCHIGES BAUTEIL

Title (fr)

PROCÉDÉ DE FABRICATION D'UN COMPOSANT SURFACIQUE D'UN ALLIAGE D'ALUMINIUM DURCISSABLE PAR VIEILLISSEMENT, LIGNE DE TRAITEMENT CORRESPONDANTE ET COMPOSANT SURFACIQUE

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Application

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Priority

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Abstract (en)

The invention relates to a method of manufacturing an areal component made of one piece from an areal semi-finished part of an age-hardenable aluminium alloy, the method comprising an age-hardening treatment wherein the alloy is, subsequent to a solution heat treatment of the semi-finished part, cooled down in a quenching process to a first temperature allowing cold-working and a natural and/or artificial aging of the age-hardening treatment is performed after optional cold-working steps, wherein a warm sheet-forming process of the semi-finished part is inserted amid the quenching process, splitting the quenching process in at least two quenching regions, one above a second temperature at which the warm sheet-forming process begins and another one above the first temperature, the second temperature being not higher than the maximum of 320 °C and 85% of the recrystallization temperature of the alloy and not lower than the minimum of 120 °C and 30% of the recrystallization temperature.

IPC 8 full level

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Citation (applicant)

- WO 0132979 A1 20010510 - RAUFOSS TECH AS [NO], et al
- WO 2016009185 A1 20160121 - IMPRESSION TECHNOLOGIES LTD [GB]

Citation (search report)

- [XI] EP 2987878 A2 20160224 - BENTELER AUTOMOBILTECHNIK GMBH [DE]
- [XI] US 2019368021 A1 20191205 - ILINICH ANDREY [US], et al

Designated contracting state (EPC)

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