

## Title (en)

THIN SHEETS MADE OF AN ALUMINIUM-MAGNESIUM-SCANDIUM ALLOY FOR AEROSPACE APPLICATIONS

## Title (de)

DÜNNE BLECHE AUS ALUMINIUM-MAGNESIUM-SCANDIUM-LEGIERUNG FÜR ANWENDUNGEN IN DER LUFT- UND RAUMFAHRT

## Title (fr)

TOLES MINCES EN ALLIAGE ALUMINIUM-MAGNESIUM-SCANDIUM POUR APPLICATIONS AEROSPATIALES

## Publication

**EP 3526358 B1 20200722 (FR)**

## Application

**EP 17794387 A 20171017**

## Priority

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## Abstract (en)

[origin: CA3037115A1] The invention relates to a method for producing a hot-worked product made of an aluminium alloy composed, in wt%, of Mg: 3.8-4.2; Mn: 0.3-0.8 and preferably 0.5-0.7, Sc: 0.1-0.3; Zn: 0.1-0.4; Ti: 0.01-0.05; Zr: 0.07-0.15; Cr: <0.01; Fe: <0.15; Si <0.1; wherein the homogenisation is carried out at a temperature of between 370°C and 450°C, for between 2 and 50 hours, such that the equivalent time at 400°C is between 5 and 100 hours, and the hot deformation is carried out at an initial temperature of between 350°C and 450°C. The invention also relates to hot-worked products obtained by the method according to the invention, in particular sheets with a thickness of less than 12mm. The products according to the invention are advantageous as they offer a better compromise in terms of mechanical strength, toughness and hot-formability.

## IPC 8 full level

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## CPC (source: EP US)

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## Citation (opposition)

Opponent : Arconic Corporation

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- US 2012152415 A1 20120621 - DANIELOU ARMELLE [FR], et al
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- THE ALUMINUM ASSOCIATION: "International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys", THE ALUMINUM ASSOCIATION - TEAL SHEETS, January 2015 (2015-01-01), pages 1 - 84, XP055494916

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