

Title (en)

TITANIUM ALLOY-BASED SHEET MATERIAL FOR LOW-TEMPERATURE SUPERPLASTIC DEFORMATION

Title (de)

TITANLEGIERUNGSBASIERTES BLECHMATERIAL ZUR SUPERPLASTISCHEN TIEFTEMPERATURVERFORMUNG

Title (fr)

MATÉRIAU EN FEUILLE À BASE D'ALLIAGE DE TITANE POUR DÉFORMATION SUPERPLASTIQUE À BASSE TEMPÉRATURE

Publication

**EP 3617335 B1 20211117 (EN)**

Application

**EP 17907725 A 20170425**

Priority

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Abstract (en)

[origin: EP3617335A1] Herein disclosed includes the manufacture of sheets from a titanium alloy having a chemical composition efficiently balanced with manufacturability based on known conventional manufacturing techniques for finished products exhibiting low temperature superplastic forming properties. The result is achieved by a sheet material for low temperature superplastic made of titanium alloy with the following content of element by % wt.: 4.5-5.5Al, 4.5-5.5V, 0.1-1.0Mo, 0.8-1.5Fe, 0.1-0.5Cr, 0.1-0.5Ni, 0.16-0.250, remainder is titanium and residual elements and having molybdenum structural equivalent [Mo]equiv. > 5 and aluminum structural equivalent [Al]equiv. < 8; the equivalent values are calculated from the expressions: Moequiv. = Mo + V/1.5 + Cr × 1.25 + Fe × 2.5 × Ni/0.8 Alequiv. = Al + O × 10 + Zr/6.

IPC 8 full level

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CPC (source: EP RU US)

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