

Title (en)

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

Title (de)

TITANLEGIERUNGSBASIERTES FOLIENMATERIAL ZUR SUPERPLASTISCHEN TIEFTEMPERATURVERFORMUNG

Title (fr)

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

Publication

EP 3617335 A1 20200304 (EN)

Application

EP 17907725 A 20170425

Priority

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Abstract (en)

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/0.8Aequiv.=Al+O×10+Zr/6.

IPC 8 full level

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