

Title (en)

Aluminium strip for lithographic pressure plate carriers and its manufacture

Title (de)

Aluminiumband für lithografische Druckplattenträger und dessen Herstellung

Title (fr)

Bande d'aluminium pour supports de plaques d'impression lithographiques et sa fabrication

Publication

EP 2067871 B1 20130220 (DE)

Application

EP 07023245 A 20071130

Priority

EP 07023245 A 20071130

Abstract (en)

[origin: EP2067871A1] The strip is produced from rolled ingots. It is hot-rolled after optional homogenization to a thickness of 2-7 mm, to reach a final thickness of 0.15-0.5 mm. The composition expressed as percentages by weight is as follows. Fe 0.3-0.4, Mg 0.2-1.0, Si 0.05-0.25, Mn up to 0.1, optionally up to 0.05 and Cu up to 0.04. The rest is aluminum with inevitable impurities. These are present individually to a maximum of 0.05% and collectively to a maximum of 0.15%. During cold rolling, intermediate annealing is carried out at a thickness of 1.5-0.5 mm. The strip is cold-rolled to the final thickness. It is coiled in the hard-rolled state, for further processing to make the lithographic printing plate substrate. Further variant compositions are proposed, in accordance with the foregoing principles. Hot rolling takes place at 250[deg] C-550[deg] C, the hot firing temperature being 280[deg] C-450[deg] C. The tested flexural fatigue resistance, transverse to the rolling direction, is at least 1850 cycles. The longitudinal tensile strength is up to 200 MPa in the hard-rolled state. Following annealing, the tensile strength is 145 MPa in either the longitudinal or transverse direction. The printing plate sheet so produced, is also claimed. An independent claim is included for the corresponding aluminum strip.

IPC 8 full level

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CPC (source: EP US)

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Cited by

CN114729413A; CN116635548A; US11326232B2; US9914318B2; US10927437B2; WO2012059362A1

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