

Title (en)
ALUMINUM ALLOY FOR HEAT EXCHANGER FINS

Title (de)
ALUMINIUMLEGIERUNG FÜR WÄRMETAUSCHERRIPPEN

Title (fr)
ALLIAGE D'ALUMINIUM POUR AILETTES D'ÉCHANGEUR DE CHALEUR

Publication
EP 3847289 B1 20240501 (EN)

Application
EP 19769682 A 20190903

Priority
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• US 2019049324 W 20190903

Abstract (en)
[origin: US2020080172A1] An aluminum alloy fin stock material comprising about 0.9-1.4 wt. % Si, 0.3-0.6 wt. % Fe, 0.20-0.60 wt. % Cu, 1.0-1.7 wt. % Mn, 0.01-0.25 wt. % Mg, 0.01-3.0 wt. % Zn, up to 0.10 wt. % Ti, with remainder Al and impurities at ≤0.15 wt. %. The aluminum alloy fin stock material is produced by a process including the steps of direct chill casting an ingot, hot rolling the ingot after the direct chill casting, cold rolling the aluminum alloy to an intermediate thickness, inter-annealing the aluminum alloy cold rolled to an intermediate thickness at a temperature between 200 and 400° C., and cold rolling the material after inter-annealing to achieve % cold work (% CW) of 20 to 40%. The aluminum alloy fin stock material possesses an improved combination of pre- and/or post-braze strength, thermal conductivity, sag resistance and/or corrosion potential.

IPC 8 full level
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CPC (source: EP US)
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