

Title (en)
PROCESS FOR HEAT-TREATING ALUMINIUM-COPPER-MAGNESIUM-SILICON ALLOYS

Publication
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Application
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Abstract (en)
[origin: ES483945A1] A process for the thermal treatment of wrought products made of an aluminum alloy of the 2000 series comprising by weight from 3.5 to 5% copper, from 0.2 to 1% magnesium, from 0.25 to 1.2% silicon, with a Si to Mg ratio greater than 0.8 comprising solution heat treatment, quenching treatment, ageing and tempering wherein the tempering treatment comprises at least two stages: (1) a main tempering treatment at a temperature higher than 225 DEG C. and lower than 280 DEG C. lasting between 6 seconds and 60 minutes and (2) a complementary tempering treatment at a temperature between 120 DEG and 175 DEG C. lasting between 4 and 192 hours. This process allows the compromise between the mechanical tensile characteristics and the resistance to intercrystalline and stress corrosion to be improved.

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