

Title (en)

AlMgMn alloy product for welded structures with improved corrosion resistance

Title (de)

Produkt aus AlMgMn-Legierung für Schweissstrukturen mit verbesserter Korossionsbeständigkeit

Title (fr)

Produit pour construction soudée en alliage AlMgMn à tenue à la corrosion améliorée

Publication

EP 0823489 A1 19980211 (FR)

Application

EP 97420125 A 19970723

Priority

FR 9610085 A 19960806

Abstract (en)

A preformed component for building of welded structures, is made of aluminium alloy containing by weight 3.0-6.5% magnesium, 0.2-1.0% manganese, 0.05-0.6% silicon and less than 0.8% iron and 1.3% zinc, also possibly up to 0.15% chromium and up to 0.30% each of copper, titanium, silver, zirconium and vanadium, with other elements and impurities up to 0.05% each and 0.15% total. It comprises 150-2000, preferably 300-1500, particles per square mm. of Mg₂Si of size between 0.5 and 5 microns. Also claimed are a hot-rolled band of the alloy, but containing less than 0.4% Fe, at least 2500, preferably at least 3300 mm. wide, use of the alloy, with up to 0.5% Zn, in naval construction, or with over 0.5% Zn as a coating to protect welded joints in naval construction and use of the alloy in industrial vehicles.

Abstract (fr)

L'invention concerne un produit laminé ou filé en alliage d'aluminium AlMgMn pour construction mécanique soudée de composition (% en poids): 3,0 < Mg < 6,5 0,2 < Mn < 1,0 Fe < 0,8 0,05 < Si < 0,6 Zn < 1,3 éventuellement Cr < 0,15 et/ou un ou plusieurs des éléments Cu, Ti, Ag, Zr, V, à une teneur < 0,30 chacun, autres éléments et impuretés inévitables < 0,05 chacun et < 0,15 au total, dans lequel le nombre de particules Mg₂Si de taille comprise entre 0,5 et 5 µm est compris entre 150 et 2000 par mm², et préférentiellement compris entre 300 et 1500 par mm². Les produits selon l'invention présentent une bonne résistance à la corrosion et sont utilisés pour des applications structurales comme par exemple les bateaux, les constructions offshore ou les véhicules industriels

IPC 1-7

C22C 21/08; **C22C 21/06**; **C22F 1/047**

IPC 8 full level

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CPC (source: EP US)

C22C 21/06 (2013.01 - EP US); **C22C 21/08** (2013.01 - EP US); **C22F 1/047** (2013.01 - EP US)

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