

Title (en)

PROCESS FOR THE ANODIC OXIDATION OF METALS AS SHEETS, TAPES AND THE LIKE, PARTICULARLY SUITABLE FOR ALUMINIUM AND ITS ALLOYS, AND RELATED EQUIPMENT

Publication

EP 0208861 A3 19871104 (EN)

Application

EP 86106391 A 19860512

Priority

IT 2117785 A 19850617

Abstract (en)

[origin: EP0208861A2] Process for the anodic oxidation of the metals, in particular of aluminium and its alloys, consisting in making a metal plate or strip (17) advance, by a conveyor means, through a plurality of electrolytic cells, containing the same anodizing bath, and positioned in a sequential approached arrangement; each cell is provided with an electrode (13, 14, 15, 16 etc.) having alternately opposite polarity relatively to the polarity of the electrodes of the adjacent cells, so as to create oxidating anodic cells alternated to reducing cathodic cells, able to cause the formation on the metal plate of an oxide layer having increasing thickness, as the plate is conveyed through the sequential oxidating cells; and then in extracting, from the last cell, which is preferably an oxidating cell, the plate thus anodized. An equipment having the purpose of accomplishing such a process, in which an endless belt conveyor (1), taut between end rollers (2, 3), on which a plurality of rollers (6, 6a, 6b, 6c), positioned equally spaced from each other, and closed at their ends by staunch containment side walls, are mounted, each adjacent couple of said rollers (6-6a; 6a-6b) constituting, together with its respective side walls (7, 8), a cell, under each of which cells a plate to be anodized being advanced; to each cell an electrode (13, 14, 15, 16 etc.) is associated, alternately having opposite polarity relatively to the polarity of the electrodes of adjacent cells, all the cells being fed with the same anodizing bath, said plurality of adjacent cells defining oxidating anodic chambers alternated to reducing cathodic chambers, able to form a layer of oxide by sequential steps of anodic oxidation. Furthermore, means for the recovery of the solution leakages, as well as means for the recycle to the individual cells of said leaked solution are provided.

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CPC (source: EP)

C25D 11/04 (2013.01)

Citation (search report)

- [XP] DE 3447575 A1 19850711 - PERMELEC ELECTRODE LTD [JP], et al
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- [A] GB 1407947 A 19751001 - FROMSON H A
- [A] US 3799848 A 19740326 - KOLIC E, et al

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Designated contracting state (EPC)

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EP 0208861 A2 19870121; EP 0208861 A3 19871104; IT 1191625 B 19880323; IT 8521177 A0 19850617

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