

Title (en)

Method for inhibiting stains on aluminum product surfaces

Title (de)

Verfahren zur Inhibierung von Flecken auf Aluminiumoberflächen

Title (fr)

Procédé d'inhibition de tâches à la surface de produits en aluminium

Publication

EP 1221497 A3 20031203 (EN)

Application

EP 02002994 A 19990618

Priority

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- US 9001798 P 19980619
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Abstract (en)

[origin: EP1221497A2] A method for inhibiting the formation of stains, especially water stains, on the exterior surfaces of aluminum alloy products. The method entails contacting the exterior surfaces of these products, particularly sheet or plate products, extrusions and/or forgings made from 5000 or 6000 Series aluminum alloys, with an organophosphonic or organophosphinic acid-derived material. Preferably, liquid forms of this material are added to an alcohol or water-based carrier solution, then sprayed, dipped, painted or rolled onto the surfaces of flat sheet or plate products to enhance their brightness. Other more complex shapes may be dipped into material baths.

IPC 1-7

C23C 22/20; **C23C 22/08**; **C23C 22/68**; **C23F 11/167**

IPC 8 full level

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Citation (search report)

- [X] US 3630790 A 19711228 - SCHMIDT DONALD L, et al
- [X] US 5132181 A 19920721 - WEFERS KARL [US], et al
- [X] US 5059258 A 19911022 - WEFERS KARL [US], et al
- [X] US 4846898 A 19890711 - NATALIE CHARLES A [US], et al
- [X] EP 0078866 A1 19830518 - NIHON PARKERIZING [JP]
- [X] FR 2246653 A1 19750502 - PARKER STE CONTINENTALE [FR]
- [X] US 2901821 A 19590901 - ROSS JR WILFORD H
- [X] WO 9713887 A1 19970417 - HENKEL CORP [US], et al
- [X] EP 0016298 A1 19801001 - BALL CORP [US]
- [X] US 5279677 A 19940118 - DAS NARAYAN [US]
- [X] US 3985584 A 19761012 - CHAN FRANCIS CHEE KEUNG, et al
- [X] DE 2519132 A1 19751106 - KANSAI PAINT CO LTD [JP], et al
- [X] EP 0357219 A1 19900307 - HITACHI LTD [JP]
- [X] US 5667599 A 19970916 - RUNGTA RAVI [US], et al
- [X] WO 9119828 A1 19911226 - HENKEL CORP [US]
- [A] US 5463804 A 19951107 - MCCLEARY SHERRI F [US], et al
- [A] GB 2317177 A 19980318 - BRITISH STEEL PLC [GB] & JP S5273139 A 19770618 - NIPPON STEEL CORP
- [X] CHEMICAL ABSTRACTS, vol. 87, no. 24, 12 December 1977, Columbus, Ohio, US; abstract no. 188271n, SZUDA S.: "CONVERSION COATING OF METALS" page 231; column left; XP002116839
- [X] DATABASE WPI Week 9010, Derwent World Patents Index; AN 90-113470, XP002116860
- [X] DATABASE WPI Section Ch Week 197830, Derwent World Patents Index; Class E11, AN 1978-54639A, XP002257308

Cited by

EP2014798A1; WO2010081833A2; WO2010034553A1; WO2009007122A1; US8337606B2

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