

Title (en)

Copper tube with improved corrosion resistance and process for manufacturing the same.

Title (de)

Kupferrohre mit verbesserter Korrosionsbeständigkeit sowie Verfahren zu ihrer Herstellung.

Title (fr)

Tubes de cuivre à resistance à la corrosion améliorée et procédé pour les obtenir.

Publication

EP 0493280 A1 19920701 (FR)

Application

EP 91420463 A 19911220

Priority

FR 9016574 A 19901226

Abstract (en)

Treatment of copper or copper alloy tubes, intended to improve their resistance to corrosion resulting from a temporary heating of the said tubes, characterised in that a thin hydrophobic layer comprising a boron compound which is inert towards copper and which forms boric anhydride during the said temporary heating is formed on the surface of the said tube. Application to the manufacture of tubes which are relatively insensitive to corrosion due to pitting resulting especially from brazing and bending operations.

Abstract (fr)

Traitement de tubes en cuivre ou alliage de cuivre destiné à améliorer leur tenue à la corrosion résultant d'un chauffage temporaire desdits tubes, caractérisé en ce qu'on forme à la surface dudit tube une couche mince hydrophobe comprenant un composé du bore, inerte vis à vis du cuivre et formant de l'anhydride borique lors dudit chauffage temporaire. Application à la fabrication de tubes peu sensibles à la corrosion par piqûres résultant notamment des travaux de brasure et de cintrage.

IPC 1-7

C23C 18/12

IPC 8 full level

C23C 22/52 (2006.01); **C23C 18/12** (2006.01); **C23F 11/00** (2006.01); **F28F 19/02** (2006.01)

CPC (source: EP)

C23C 18/1216 (2013.01); **C23C 18/1287** (2013.01); **F28F 19/02** (2013.01)

Citation (search report)

- [A] DE 1669159 A1 19700903 - FOSECO TRADING AG
- [A] GB 1063564 A 19670330 - UNITED STATES BORAX CHEM
- [A] SOVIET INVENTIONS ILLUSTRATED Section Ch, Week 8443, 5 Décembre 1984 Derwent Publications Ltd., London, GB; Class M, AN 84-268821 & SU-A-1 077 950 (SLAVY METAL ENG RES) 7 Mars 1984

Cited by

DE19533410B4; WO2019057609A1

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

EP 0493280 A1 19920701; **EP 0493280 B1 19951206**; DE 69115237 D1 19960118; DE 69115237 T2 19960515; ES 2080282 T3 19960201; FR 2671108 A1 19920703; FR 2671108 B1 19940304; JP H04301081 A 19921023; JP H0776429 B2 19950816

DOCDB simple family (application)

EP 91420463 A 19911220; DE 69115237 T 19911220; ES 91420463 T 19911220; FR 9016574 A 19901226; JP 34537891 A 19911226