

Title (en)

Method of box-annealing steel sheet to minimize annealing stickers.

Title (de)

Verfahren zum Verringern des Klebens von Stahlblechen beim Kastenglühen.

Title (fr)

Procédé pour réduire le collage des tôles en acier pendant le recuit en caisse.

Publication

**EP 0094808 A1 19831123 (EN)**

Application

**EP 83302724 A 19830513**

Priority

US 37804782 A 19820514

Abstract (en)

In the box annealing of steel sheet, the tendency for adjacent wraps of the sheet to pressure weld (stick) is decreased or eliminated by passing the sheet, prior to annealing, through a rinse containing from 1,500 to 10,000 ppm of the magnesium or calcium salts of soluble carboxylic acids, preferably formates. Further benefits are realized if the sheet is electro-cleaned with a silicate containing cleaning solution, and thereafter rinsed in the formate solution whereby the latter acts to fix the concentration of silicates remaining on the surface of the sheet.

IPC 1-7

**C21D 1/70**; **C21D 1/74**

IPC 8 full level

**C21D 9/663** (2006.01); **C21D 1/26** (2006.01); **C21D 1/70** (2006.01); **C21D 9/46** (2006.01)

CPC (source: EP KR)

**C21D 1/26** (2013.01 - KR); **C21D 1/70** (2013.01 - EP); **C21D 9/46** (2013.01 - EP)

Citation (search report)

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Designated contracting state (EPC)

BE DE FR GB IT NL

DOCDB simple family (publication)

**EP 0094808 A1 19831123**; **EP 0094808 B1 19851121**; AU 1453883 A 19831117; BR 8302507 A 19840117; CA 1198708 A 19851231; DE 3361283 D1 19860102; ES 522379 A0 19840501; ES 8404713 A1 19840501; JP S5953635 A 19840328; KR 840004790 A 19841024

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**EP 83302724 A 19830513**; AU 1453883 A 19830513; BR 8302507 A 19830513; CA 427899 A 19830511; DE 3361283 T 19830513; ES 522379 A 19830513; JP 8288983 A 19830513; KR 830002072 A 19830513