

Title (en)  
METHOD FOR MAKING DECORATED BOTTLE CAPS WITH IMPROVED MECHANICAL STRENGTH AND DEVICE FOR IMPLEMENTING SAID METHOD

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON VERZIERTEN FLASCHEDECKELN MIT VERBESSERTER MECHANISCHER FESTIGKEIT UND VORRICHTUNG ZUR IMPLEMENTIERUNG DIESES VERFAHRENS

Title (fr)  
PROCEDE DE FABRICATION DE CAPSULES DECOREES A RESISTANCE MECANIQUE AMELIOREE ET DISPOSITIF POUR LA MISE EN OEUVRE DU PROCEDE

Publication  
**EP 1755804 A1 20070228 (FR)**

Application  
**EP 05763703 A 20050502**

Priority  
• FR 2005001091 W 20050502  
• FR 0404885 A 20040506

Abstract (en)  
[origin: WO2005120743A1] The invention concerns a method comprising: a) providing sheet or format metal; b) swaging said metal by means of a swaging lubricant, so as to form a swaged blank (1); c) degreasing said swaged blank (1), so as to typically remove the remains of the swaging lubricant, to form a degreased blank (2) capable of being lacquer coated; d) lacquer coating said degreased blank (2), said resulting lacquer coated blank (3) being then optionally decorated; e) an optional finishing step. The method is characterized in that during the degreasing at step c), said swaged blank (1) is subjected to an energetic radiation emission treatment of selected intensity and duration to eliminate or decompose said remains of lubricant, said treatment being wholly carried out at a metal temperature less than 150 DEG C, and for a duration typically less than 1 second, so as to obtain, following said treatment, a surface tension not less than 34 dynes/cm. The invention also concerns a device for implementing said method. The invention provides the advantage that the low temperature degreasing preserves the mechanical properties of the metal of the swaged blank (1).

IPC 8 full level  
**B21D 51/50** (2006.01); **B21D 51/44** (2006.01); **B65D 41/34** (2006.01); **C23G 5/00** (2006.01); **C25F 1/00** (2006.01); **C25F 1/06** (2006.01)

CPC (source: EP US)  
**B21D 51/44** (2013.01 - EP US); **B21D 51/50** (2013.01 - EP US); **Y10T 29/49885** (2015.01 - EP US); **Y10T 29/49906** (2015.01 - EP US); **Y10T 29/4998** (2015.01 - EP US)

Citation (search report)  
See references of WO 2005120743A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005120743 A1 20051222**; AT E385864 T1 20080315; AU 2005251969 A1 20051222; AU 2005251969 B2 20100610; CA 2564640 A1 20051222; CA 2564640 C 20130702; DE 602005004783 D1 20080327; DE 602005004783 T2 20090212; EP 1755804 A1 20070228; EP 1755804 B1 20080213; ES 2301034 T3 20080616; FR 2869820 A1 20051111; FR 2869820 B1 20070622; MX PA06012814 A 20070126; NZ 550928 A 20091224; PL 1755804 T3 20080731; US 2007107190 A1 20070517; US 7832075 B2 20101116; ZA 200609232 B 20080730

DOCDB simple family (application)  
**FR 2005001091 W 20050502**; AT 05763703 T 20050502; AU 2005251969 A 20050502; CA 2564640 A 20050502; DE 602005004783 T 20050502; EP 05763703 A 20050502; ES 05763703 T 20050502; FR 0404885 A 20040506; MX PA06012814 A 20050502; NZ 55092805 A 20050502; PL 05763703 T 20050502; US 55701506 A 20061106; ZA 200609232 A 20050502