

Title (en)  
CAPTIVE CLOSURE WITH STABILIZED OPENING ANGLE

Title (de)  
UNVERLIERBARER VERSCHLUSS MIT STABILISIERTEM ÖFFNUNGSWINKEL

Title (fr)  
DISPOSITIF DE FERMETURE IMPERDABLE PRÉSENTANT UN ANGLE D'OUVERTURE STABILISÉ

Publication  
**EP 3880574 B1 20240710 (DE)**

Application  
**EP 19802116 A 20191106**

Priority  
• DE 102018128886 A 20181116  
• DE 102019120725 A 20190731  
• EP 2019080338 W 20191106

Abstract (en)  
[origin: WO2020099200A1] The invention relates to a closure consisting of a screw cap (10) with a tamperproof strip (3). The screw cap has at least one cylindrical cap casing (2) with an inner thread and a circumferential tamperproof strip at the lower open end of the cap casing, said tamperproof strip being connected to the lower edge of the cap casing along easily tearable weakness lines (13, 14), wherein the tamperproof strip remains captively connected to the cap casing after a tearing process along the weakness lines by means of holding strips (15, 16). The aim of the invention is to design a captive screw cap with a tamperproof strip in such a manner that after the screw cap has been unscrewed and released from the bottleneck opening, the screw cap is folded away or tilted into a position in which the screw cap does not interfere with the additional use of the bottle or with pouring or drinking out of the bottle and can remain there without additional measures. According to the invention, this is achieved in that the holding strips are formed by two weakness lines, each of which is interrupted at least once in the circumferential direction and which partly overlap in the circumferential direction and run at an axial distance to each other at least in the overlap region. The separating web (11, 12) of each of the two weakness lines is bridged by the respective other weakness line preferably at an axial distance.

IPC 8 full level  
**B65D 41/34** (2006.01); **B65D 55/16** (2006.01)

CPC (source: EP US)  
**B65D 5/748** (2013.01 - EP); **B65D 41/3428** (2013.01 - EP US); **B65D 55/16** (2013.01 - EP US); **B65D 2251/1008** (2013.01 - EP); **B65D 2401/30** (2020.05 - EP)

Citation (examination)  
• US 2015251827 A1 20150910 - CAMPBELL PHILLIP JOHN [US]  
• WO 2015032754 A1 20150312 - DELTONA INNOVATIONS AG [CH]  
• EP 1533240 A1 20050525 - TETRA LAVAL HOLDINGS & FINANCE [CH]  
• KR 20100029797 A 20100317 - YANG DU YOUNG [KR]  
• US 5360126 A 19941101 - SNYDER WILLIAM J [US], et al  
• WO 2009048273 A2 20090416 - BEST EASY CAP CO LTD [KR], et al  
• KR 101744846 B1 20170608 - YANG BOK JOO [KR]  
• US 6223924 B1 20010501 - EK GOERAN [SE], et al  
• US 2004251276 A1 20041216 - ADAMS BRIAN M [US], et al

Cited by  
WO2020251984A1; EP3966126A4; US12006114B2; WO2020182854A1; WO2020099200A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2020099200 A1 20200522**; BR 112021007456 A2 20210720; CN 113015683 A 20210622; DE 202019005974 U1 20230928; EP 3880574 A1 20210922; EP 3880574 B1 20240710; EP 3995410 A1 20220511; EP 3995410 B1 20240214; EP 3995410 C0 20240214; EP 4303149 A2 20240110; EP 4303149 A3 20240313; EP 4403486 A1 20240724; ES 2974521 T3 20240627; PL 3995410 T3 20240624; US 2022002021 A1 20220106; US 2023090849 A1 20230323

DOCDB simple family (application)  
**EP 2019080338 W 20191106**; BR 112021007456 A 20191106; CN 201980075323 A 20191106; DE 202019005974 U 20191106; EP 19802116 A 20191106; EP 21195586 A 20191106; EP 23211240 A 20191106; EP 24166258 A 20191106; ES 21195586 T 20191106; PL 21195586 T 20191106; US 201917280787 A 20191106; US 202217994210 A 20221125