

Title (en)

SEMITIENISHED PRODUCT FOR POPULATING WITH COMPONENTS, METHOD FOR POPULATING SAME WITH COMPONENTS, AND USE OF THE SEMI FINISHED PRODUCT

Title (de)

HALBZEUG ZUR BAUTEILBESTÜCKUNG, VERFAHREN ZUR BAUTEILBESTÜCKUNG UND VERWENDUNG DES HALBZEUGS

Title (fr)

PRODUIT SEMI-FINI DESTINÉ À ÊTRE REMPLI AVEC DES COMPOSANTS, SON PROCÉDÉ DE REMPLISSAGE AVEC DES COMPOSANTS ET UTILISATION DU PRODUIT SEMI-FINI

Publication

EP 4008021 A1 20220608 (DE)

Application

EP 20771481 A 20200903

Priority

- DE 102019213609 A 20190906
- DE 102019214996 A 20190930
- EP 2020074517 W 20200903

Abstract (en)

[origin: WO2021043855A1] The invention relates to a semifinished product (6) for populating with components, or on which components are encapsulated, more particularly for populating a power electronics component that can be produced by a jointing technique such as pressure sintering, and to the use of the semifinished product (6) in a jointing method for the assembly of semiconductor components. As a result of the invention it is possible, for the first time, to produce a fully sealed, insulating encapsulation in a single process step, by pressure sintering for example. To this end a semifinished product (6) in the B-stage is applied around the sintering material (3) prior to pressure sintering. The invention is characterized above all by the capability to electrically connect and electrically isolate simultaneously in a single operation, preferably by pressure sintering, when assembling semiconducting components (7).

IPC 8 full level

H01L 21/56 (2006.01); **H01L 21/60** (2006.01); **H01L 23/00** (2006.01)

CPC (source: CN EP US)

H01L 21/56 (2013.01 - EP US); **H01L 21/563** (2013.01 - CN EP); **H01L 23/3185** (2013.01 - CN); **H01L 23/3735** (2013.01 - CN);
H01L 24/00 (2013.01 - EP); **H01L 24/29** (2013.01 - CN); **H01L 24/30** (2013.01 - EP); **H01L 24/32** (2013.01 - CN);
H01L 24/73 (2013.01 - EP); **H01L 24/81** (2013.01 - EP); **H01L 24/83** (2013.01 - CN EP US); **H01L 24/92** (2013.01 - EP);
H01L 25/072 (2013.01 - CN); **H01L 23/3735** (2013.01 - EP); **H01L 24/05** (2013.01 - EP); **H01L 24/06** (2013.01 - EP);
H01L 24/13 (2013.01 - EP); **H01L 24/16** (2013.01 - EP); **H01L 24/29** (2013.01 - EP US); **H01L 24/32** (2013.01 - EP US);
H01L 24/95 (2013.01 - US); **H01L 25/072** (2013.01 - EP US); **H01L 25/18** (2013.01 - US); **H01L 2224/0401** (2013.01 - EP);
H01L 2224/05552 (2013.01 - EP); **H01L 2224/05553** (2013.01 - EP); **H01L 2224/05554** (2013.01 - EP); **H01L 2224/05599** (2013.01 - EP);
H01L 2224/0603 (2013.01 - CN EP); **H01L 2224/06051** (2013.01 - EP); **H01L 2224/131** (2013.01 - EP); **H01L 2224/13111** (2013.01 - EP);
H01L 2224/1329 (2013.01 - EP); **H01L 2224/13294** (2013.01 - EP); **H01L 2224/133** (2013.01 - EP); **H01L 2224/13311** (2013.01 - EP);
H01L 2224/13313 (2013.01 - EP); **H01L 2224/13339** (2013.01 - EP); **H01L 2224/13347** (2013.01 - EP); **H01L 2224/16227** (2013.01 - EP);
H01L 2224/29076 (2013.01 - EP); **H01L 2224/291** (2013.01 - EP); **H01L 2224/29111** (2013.01 - EP US); **H01L 2224/29113** (2013.01 - US);
H01L 2224/29139 (2013.01 - US); **H01L 2224/29147** (2013.01 - US); **H01L 2224/2929** (2013.01 - EP US); **H01L 2224/29294** (2013.01 - EP);
H01L 2224/293 (2013.01 - EP); **H01L 2224/29311** (2013.01 - EP); **H01L 2224/29313** (2013.01 - EP); **H01L 2224/29339** (2013.01 - EP US);
H01L 2224/29347 (2013.01 - EP); **H01L 2224/3003** (2013.01 - CN EP); **H01L 2224/301** (2013.01 - EP); **H01L 2224/3015** (2013.01 - CN EP);
H01L 2224/30505 (2013.01 - EP); **H01L 2224/32013** (2013.01 - EP); **H01L 2224/32225** (2013.01 - US); **H01L 2224/32227** (2013.01 - EP);
H01L 2224/32245 (2013.01 - CN EP); **H01L 2224/73104** (2013.01 - EP); **H01L 2224/73204** (2013.01 - EP); **H01L 2224/81192** (2013.01 - EP);
H01L 2224/81203 (2013.01 - EP); **H01L 2224/81399** (2013.01 - EP); **H01L 2224/83192** (2013.01 - CN EP US); **H01L 2224/83201** (2013.01 - US);
H01L 2224/83203 (2013.01 - CN EP); **H01L 2224/8359** (2013.01 - EP); **H01L 2224/83591** (2013.01 - EP); **H01L 2224/83687** (2013.01 - EP);
H01L 2224/83688 (2013.01 - EP); **H01L 2224/8369** (2013.01 - EP); **H01L 2224/83693** (2013.01 - EP); **H01L 2224/83801** (2013.01 - CN EP US);
H01L 2224/8384 (2013.01 - CN EP US); **H01L 2224/83851** (2013.01 - CN EP US); **H01L 2224/83862** (2013.01 - EP);
H01L 2224/83948 (2013.01 - CN EP US); **H01L 2224/83951** (2013.01 - CN EP); **H01L 2224/9211** (2013.01 - EP); **H01L 2224/95** (2013.01 - US);
H01L 2224/97 (2013.01 - CN); **H01L 2924/00015** (2013.01 - EP); **H01L 2924/014** (2013.01 - US); **H01L 2924/0635** (2013.01 - US);
H01L 2924/0665 (2013.01 - US)

Citation (search report)

See references of WO 2021043855A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2021043855 A1 20210311; CN 114730753 A 20220708; DE 102019214996 A1 20210311; EP 4008021 A1 20220608;
US 2022336408 A1 20221020

DOCDB simple family (application)

EP 2020074517 W 20200903; CN 202080073829 A 20200903; DE 102019214996 A 20190930; EP 20771481 A 20200903;
US 202017640937 A 20200903