

Title (en)

ADHESIVE FOR CONNECTING A POWER ELECTRONIC ASSEMBLY TO A HEAT SINK, AND COMPOSITE MADE THEREOF

Title (de)

KLEBER ZUR VERBINDUNG EINER LEISTUNGSELEKTRONISCHEN BAUGRUPPE MIT EINEM KÜHLKÖRPER UND VERBUND DARAUS

Title (fr)

ADHÉSIF POUR RELIER UN COMPOSANT ÉLECTRONIQUE DE PUISSANCE À UN CORPS DE REFROIDISSEMENT ET COMPOSITE AINSI OBTENU

Publication

**EP 3420586 A1 20190102 (DE)**

Application

**EP 17708190 A 20170221**

Priority

- DE 102016205178 A 20160330
- EP 2017053827 W 20170221

Abstract (en)

[origin: WO2017167502A1] The invention relates to an adhesive for connecting a ceramic substrate, in particular a power-electronic assembly, in a heat-conductive manner, to a heat sink, and to a composite made of a heat sink and a ceramic substrate comprising the adhesive. By using hybrid metal-organic compounds and/or water glasses as the adhesive, high degrees of crosslinking are achieved and/or by means of the formation of covalent bonds between the adhesive and the joint partners and/or the filler particles, a clear increase of heat conductivity is achieved such that the heat-conductive adhesive layer exhibits a heat resistance which is substantially reduced compared to the prior art, and thus the heat dissipation chain is loaded less heavily than when using conventional joining and/or connecting methods.

IPC 8 full level

**H01L 23/373** (2006.01); **H01L 23/367** (2006.01); **H01L 23/40** (2006.01)

CPC (source: EP US)

**B32B 7/12** (2013.01 - US); **B32B 15/04** (2013.01 - US); **C09J 183/08** (2013.01 - US); **H01L 23/3735** (2013.01 - EP); **H01L 23/3737** (2013.01 - EP); **H05K 1/0201** (2013.01 - US); **B32B 2307/302** (2013.01 - US); **B32B 2457/08** (2013.01 - US)

Citation (search report)

See references of WO 2017167502A1

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 2017167502 A1 20171005**; CN 109155295 A 20190104; DE 102016205178 A1 20171005; EP 3420586 A1 20190102; US 2020305269 A1 20200924

DOCDB simple family (application)

**EP 2017053827 W 20170221**; CN 201780030025 A 20170221; DE 102016205178 A 20160330; EP 17708190 A 20170221; US 201716089151 A 20170221