

Title (en)
Heating element and its use

Title (de)
Heizelement und dessen Verwendung

Title (fr)
Élément de chauffage et son utilisation

Publication
EP 2234455 A3 20110810 (DE)

Application
EP 10001926 A 20100225

Priority
DE 102009014697 A 20090327

Abstract (en)
[origin: EP2234455A2] The element has a flexible grid structure (2) containing electrically conductive, flexible and extendable paste (3) and arranged on a support (1), which is made of flexible material i.e. nonwoven fabric. Grid elements (4) are electroconductively and mechanically connected with each other by intersection points (5). The grid elements are formed by polygon elements and rhombus elements (7). A thickness of the grid elements and/or the intersection points ranges from 50 micrometers and 250 micrometers. A width of the grid elements and/or the intersection points ranges from 2 mm to 10 mm.

IPC 8 full level
H05B 3/34 (2006.01)

CPC (source: EP US)
H05B 3/34 (2013.01 - EP US); **H05B 2203/007** (2013.01 - EP US); **H05B 2203/011** (2013.01 - EP US); **H05B 2203/013** (2013.01 - EP US); **H05B 2203/017** (2013.01 - EP US); **H05B 2203/029** (2013.01 - EP US)

Citation (search report)

- [XY] US 2005051536 A1 20050310 - SHIRLIN JACK W [US], et al
- [Y] US 2004051082 A1 20040318 - CHILD ANDREW D [US], et al
- [Y] WO 2008122043 A1 20081009 - FERGUSON GERALD KEITH [US], et al
- [YA] EP 1612100 A2 20060104 - ILLINOIS TOOL WORKS [US]
- [AD] EP 1284278 A2 20030219 - ROTTA GMBH [DE]

Designated contracting state (EPC)
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 SE SI SK SM TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2234455 A2 20100929; EP 2234455 A3 20110810; EP 2234455 B1 20150923; DE 102009014697 A1 20101007;
US 2010270279 A1 20101028; US 8704140 B2 20140422

DOCDB simple family (application)
EP 10001926 A 20100225; DE 102009014697 A 20090327; US 72409410 A 20100315