

## Title (en)

Tile element fixing means and tile element covering provided with such tile element fixing means.

## Title (de)

Plattenbefestigungsmittel und mit diesen ausgestatteter Plattenbelag.

## Title (fr)

Moyens de fixation des dalles et dallage équipé de ces moyens.

## Publication

**EP 0203226 A1 19861203 (EN)**

## Application

**EP 85200859 A 19850529**

## Priority

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## Abstract (en)

Tile covering comprising a number of adjacent tiles (1) being supported by tile supports (6) of elastic material which rest on a roof (4). For fixing of the tiles (1) there are tile fixing means (8) with a circumferentially deformable peripheral element of elastic material which with its peripheral edge (13) cooperates in a clamping manner with an upright edge (7 min ) of a tile fixing device accommodation chamber (7) in a tile. For this purpose, the peripheral element (9) cooperates on its inner side with adjacent rigid segments (10a, 10b, 10c, 10d) which are separated from each other and whose internal faces (19) form a tapering surface. Pressing the segments (10a, 10b, 10c, 10d) outwards in order to deform the peripheral element (9), takes place with a disc shaped deformation element (11) having an external surface (18) tapering outwards. In the middle of the disc (11) is a bore (12) provided with screw thread (33) in which a shaft (14) provided with screw thread (13) and having a head (15) can move. When in use, the head (15) of the shaft (14) rests on the bottom (17a) of a tile recess (17) on the top side of the tiles (1). By means of a socket-head screw wrench which is placed in a socket (16) of the head (15) of the shaft, the disc (11) can be moved upwards, said upward movement being limited in each case by top faces (29) connected with the segments and, of course, by the clamping between the segments and the side wall (7) of the accommodation chamber (7). The tile fixing means accommodation chamber (7) can be located on the bottom side of the tile, but it can also be at distance from the bottom in a side wall (23) of the tile (1). The invention also comprises a tile fixing means (8) such as that described above and a tile (1) provided with a tile fixing means accommodation chamber (7), and preferably a recess (17) for accommodating a head (15) of a shaft (14). The invention also comprises a tile fixing means (8) such as that described above and a tile (1) provided with a tile fixing means accommodation chamber (7), and preferably a recess (17) for accommodating a head (15) of a shaft (14).

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- [X] DE 3220368 A1 19830310 - BRIDGESTONE TIRE CO LTD [JP]
- [A] DE 2856367 A1 19790705 - ZOONTJENS BEHEER B V P
- [A] FR 2549870 A1 19850201 - MATERIAUX ETANCHEITE ENTREPRIS [FR]
- [A] FR 2428716 A1 19800111 - BRIDGESTONE TIRE CO LTD [JP]
- [A] FR 2370141 A1 19780602 - BETONLEICHTBAUKOMBINAT VEB [DD]
- [A] DE 2251188 A1 19740425 - RYSCHKA KARL HEINZ
- [A] FR 2229835 A1 19741213 - COUWENBERGS PAUL [DE]

## Cited by

FR3128478A1; EP1111132A3; EP1287215A4; ES2326613A1; NL1032369C2; EP1897994A3; DE10022070A1; DE10022070C2; EP1455031A3; EP1143083A1; US7958688B2

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