Abstract Title: Fastening device comprising self adhesive layer and suction pad

A fastening device comprises a substrate 10 having first and second faces, at least one suction pad 11 projecting from the first face 10A, and a self adhesive layer 12 on the second face 10B. A removable cover strip 13 may be provided on the self adhesive layer. The substrate may be formed from rubber, and the or each suction pad may be integrally moulded with the substrate. The substrate may be elongate, and may be rolled into a coil. Alternatively, the substrate may be in the form of a pad (30, Fig. 2) with a plurality of suction pads on one face.
Title: Fastening Device

The present invention relates to a fastening device.

It is often desirable to connect, temporarily or permanently, an object to a smooth non-porous surface such as a kitchen worktop, refrigerator panel, or tiles. It is possible to use double sided tape, but this can soil the non-porous surface so does not provided a good solution.

The invention seeks to provide a solution to this problem.

According to the present invention there is provided a fastening device comprising a substrate having first and second faces, at least one sucker projecting from the first face, and a self adhesive layer on the second face.

Preferably the first and second faces are on opposing sides of the substrate.

Preferably a removable cover strip is provided on the adhesive layer.

Preferably the substrate is a thin planar substrate.
Preferably the substrate is flexible. The substrate may be formed from synthetic or natural rubber material.

The or each sucker may be integrally moulded with the substrate.

The substrate may be an elongate substrate. The elongate substrate may roll up into a coil. The elongate substrate may include a plurality for suckers sequentially spaced along the length of the substrate. The suckers may a single row of suckers.

In another embodiment the substrate may be in the form of a pad with a plurality of suckers on one face of the pad.

Embodiments of the invention will now be described with reference to the accompanying drawings in which:

Figure 1 shows a first embodiment having an elongate substrate, and

Figure 2 shows a second embodiment having a substrate in the form of a pad.

Referring to Figure 1 there is shown a fastening device 1.
Device 1 has an elongate thin planar substrate 10 of uniform width and thickness formed from flexible material, such as rubber or synthetic rubber or other flexible plastics. Substrate 10 has first and second faces 10A, 10B on opposing sides of the substrate 10.

A plurality of suckers 11 are integrally moulded with the substrate 10. Suckers 11 are provided in a single row sequentially spaced along the length of the substrate on first face 10A.

A layer of self adhesive material 12 extends over the second face 10B of the substrate 10. A removable cover strip 13 is provided on the adhesive layer.

Fastening device may be rolled up in a coil as shown for storage and transport purposes prior to use.

In use fastening device 1 may be used to secure an object to a surface. For example the fastening device 1 may be used to secure a tub of wipes to a tiled wall in a kitchen or bathroom. A short length of the device 1 (e.g. with two suckers) can be cut off the entire length. The cover strip 13 can be removed and the self adhesive material 12 can be used to stick the substrate 10 to the tub of wipes. The suckers 11 can then be pushed onto the tiled wall to secure the tub of wipes to the tiled wall.
It will be appreciated that because the substrate is flexible, face 2B can accommodate curved shapes (e.g. the curve on a tub of wipes), whilst the face 10A with the suckers can stick to a planar surface like a tile or other non-porous surface.

Referring to Figure 2 there is shown a fastening device 20.

Device 20 is pad-shaped thin planar substrate 30 shaped as a rectangle (or other shape) of uniform thickness formed from flexible material, such as rubber or synthetic rubber or other flexible plastics. Substrate 30 has first and second faces 30A, 30B on opposing sides of the substrate 30.

A plurality of suckers 31 are integrally moulded with the substrate 30. Suckers 31 are provided in an array spaced over the first face 30A.

A layer of self adhesive material 32 extends over the second face 30B of the substrate 30. A removable cover strip 33 is provided on the adhesive layer.
In use fastening device 20 may be used to secure an object to a surface. For example the
fastening device 20 may be used to secure a bowl to a kitchen worktop. A small proportion of
device 20 (e.g. with eight suckers) can be cut from the whole device. The cover strip can be
removed and the self adhesive material can be used to stick the substrate to the underside of the
bowl. The suckers can then be pushed onto the kitchen worktop to secure the bowl to the
worktop.

It will be appreciated that because the substrate is flexible, face 30B can accommodate curved
shapes (e.g. the curve on a bowl), whilst the face 30A with the suckers can stick to a planar
surface like a worktop or other non-porous surface.

The invention may take a form different to that specifically described above. For example the
substrate could be stiff rather than flexible. The substrate could have first and second faces which
are not opposing, e.g. the substrate could be a triangular tube with three elongate faces and the
suckers and adhesive layer would be provided on two of the faces. The suckers could be of any
desired size.

The fastening device of the invention will have many applications other than those mentioned.

Further modifications will be apparent to those skilled in the art without departing from the
scope of the present invention.
CLAIMS

1. A fastening device comprising a substrate having first and second faces, at least one sucker projecting from the first face, and a self adhesive layer on the second face.

2. A fastening device according to claim 1, wherein the first and second faces are on opposing sides of the substrate.

3. A fastening device according to claim 1 or 2, wherein a removable cover strip is provided on the adhesive layer.

4. A fastening device according to claim 1, 2, or 3, wherein the substrate is a thin planar substrate.

5. A fastening device according to any preceding claim, wherein the substrate is flexible.

6. A fastening device according to any preceding claim, wherein the substrate is formed from synthetic or natural rubber material.

7. A fastening device according to any preceding claim, wherein the or each sucker is integrally moulded with the substrate.
8. A fastening device according to any preceding claim, wherein the substrate is an elongate substrate.

9. A fastening device according to claim 8, wherein the elongate substrate rolls up into a coil.

10. A fastening device according to claim 8 or 9, wherein the elongate substrate may include a plurality for suckers sequentially spaced along the length of the substrate.

11. A fastening device according to claim 8, 9, or 10, wherein the suckers are a single row of suckers.

12. A fastening device according to any of claims 1 to 7, wherein the substrate may be in the form of a pad with a plurality of suckers on one face of the pad.

13. A fastening device substantially as hereinbefore described with reference to and as shown in the accompanying drawings.
Application No: GB0705702.9  
Examiner: Mr Nick Smith  
Claims searched: 1-13  
Date of search: 2 May 2007

**Patents Act 1977: Search Report under Section 17**

**Documents considered to be relevant:**

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<th>Category</th>
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<td>1-11</td>
<td>US 4070735 A1 (CANADAY) See in particular Figs. 2-4 and col. 2, lines 1-25</td>
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<td>JP 08109916 A (TAKAHASHI) 30.04.96 (See in particular Figs. 1 &amp; 2 and WPI Abstract Accession No. 1996-264450 [27])</td>
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- **A** Document indicating technological background and/or state of the art.
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- **E** Patent document published on or after, but with priority date earlier than, the filing date of this application.

**Field of Search:**

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC:

- **E2A** Worldwide search of patent documents classified in the following areas of the IPC
- **F16B** The following online and other databases have been used in the preparation of this search report
  - EPDOC, WPI

**International Classification:**

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