

ELASTICATED PAD FOR BODY CONTACT
INCONTINENCE PRODUCT

This invention relates to an absorbent article. It is particularly concerned with an absorbent article, for example in the form of a sanitary pad, which can be used by women suffering from light and moderate incontinence. The invention will be so described below. However, the invention is of more general applicability in relation to the absorption of body fluids, either urine or menstua.

One problem associated with such articles is that urine may not go directly into the article, and be absorbed therein, but may flow along the user's body in a rearward direction and escape without ever entering the absorbent material of the article. This is particularly true in the case of gushes of urine which are of low volume or low flow rate.

It is an object of the present invention to provide an absorbent article which is so shaped that the above problem is eliminated, or at least reduced.

According to the present invention there is provided an elongate absorbent article which comprises a fluid-permeable topsheet, a core for providing fluid-storage, a fluid-receiving layer located between the topsheet and the core for transferring to the core fluid which passes through the topsheet, and elastics means located between the core and the fluid-receiving layer, the elastics means being in tension when the article is in a generally flat condition.

The fluid-receiving layer is referred to below as a secondary topsheet.

The invention will now be further described with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of an embodiment of the invention;

Figure 2 is a longitudinal section through the embodiment of Figure 1, taken along the longitudinal centre line thereof;

Figure 3 is a transverse section through the embodiment of Figure 1, taken on the transverse centre line thereof; and

Figure 4 is a view similar to Figure 3 but showing a modified embodiment.

The embodiment shown in Figures 1 to 3 is an absorbent sanitary pad for use by a woman suffering from light incontinence. It comprises a fluid-permeable topsheet 1, a fluid-impermeable backsheet 2 which is sealed thereto, by a seal 3 at the periphery of the article, for example by heat sealing or adhesive. The article further comprises an absorbent core 4, for example one which contains an absorbent gelling material (AGM), and a secondary topsheet 5 which serves to receive fluid and transfer it to the core.

The materials used for the topsheet, backsheet and absorbent core may be those which are conventionally used for absorbent sanitary products. However, attention is directed to International Patent Publication WO94/28838 which describes an absorbent product having a secondary topsheet of high bulkiness, and to WO94/01069 and PCT/EP94/04215 which describe cores including AGM's, for further details of some suitable materials.

The article further comprises an elastication system which serves to cause the article to curve in a way which enables it to conform closely to the user's body and at least substantially prevent, or reduce, the risk of urine escaping past it. In Figures 1 to 3 this elastication system comprises an elastic thread 6 which runs along at least a major portion of the length of the article, preferably substantially the whole length of the article, beneath the secondary topsheet 5, and is attached at its ends, or along its whole length, or at selected points along its length, to the secondary topsheet and/or to the core. As can be seen, this causes the pad to assume a configuration which is upwardly concave as seen in longitudinal section (Figure 2), and upwardly convex as seen in transverse section (Figure 3). The pad is thus resiliently raised towards the body of the user and held in close contact with it, so providing a better fit and a better ability to acquire even the lightest release of urine. The core is relatively stiff, and stays substantially flat as view in transverse section, thus enabling it to maintain good contact with the user's panty.

Figure 4 shows a modified embodiment which comprises in addition an elastic thread 7 which runs transversely above the core 2, and below the secondary topsheet 5

with its longitudinal elastic thread 6. The transverse elastic thread 7 is shown fixed to the secondary topsheet 5, though if it were slightly longer it could alternatively, or additionally, be fixed to the primary topsheet 1. In any event, it is preferably fixed only at its ends. By pulling the sides of the secondary topsheet and/or primary topsheet inwards, the transverse elastic thread assists in giving the article, as seen in transverse section, the desired upwardly convex shape.

Various other modifications are also possible. For example, or a plurality of transverse threads could be provided, the plurality being arranged close to one another or spaced along the length of the article, and the single longitudinal thread may be replaced by a plurality of longitudinal threads arranged close to one another.

**CLAIMS:**

1. An elongate absorbent article which comprises a fluid-permeable topsheet, a core for providing fluid-storage, a fluid-receiving layer located between the topsheet and the core for transferring to the core fluid which passes through the topsheet, and elastics means located between the core and the fluid-receiving layer, the elastics means being in tension when the article is in a generally flat condition.
2. An article according to claim 1, further comprising a fluid-impermeable backsheet on the opposite side of the core to the fluid-receiving layer.
3. An article according to either preceding claim, wherein the elastics means comprises at least one elastic thread running substantially along at least a major portion of the longitudinal centre line of the article.
4. An article according to claim 3, wherein the or each said thread is attached at its ends to at least one of the fluid-receiving layer and the core.
5. An article according to claim 3, wherein the or each said thread is attached at selected points along its length to at least one of the fluid-receiving layer and the core.
6. An article according to any preceding claim, further comprising at least one further elastic thread extending transversely of the article and attached at its ends to at least one of the topsheet and the fluid-receiving layer.
7. An article according to any preceding claim which is in the form of a sanitary pad.