SACHET FOR WASHING COLOURED FABRICS

A sachet for washing fabrics, in particular colored fabrics includes a surrounding bag (1), containing an inner bag (2) within a first space (V1). The surrounding bag (1) is permeable to a washing liquid (5) and absorbs possible particles (4) of coloring dye present in the washing liquid (5) during the washing of the fabrics. Inside the inner bag a second space (V2) is delimited and contains an additive (3) to be released, during the washing and dissolved in the washing liquid (5).
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
SACHET FOR WASHING COLOURED FABRICS

BACKGROUND OF THE INVENTION

The present invention relates to a bag package for washing fabrics, in particular colored fabrics.

DESCRIPTION OF THE PRIOR ART

It is known that fabrics are washed manually or in washing machine, usually with detergents in liquid, powder or tablet form.

It is also known that the colored fabrics, especially during the first washings, tend to release particles of dye into the washing water.

This fact can be detrimental, e.g. during washing of clothes of different colors in a washing machine, since the coloring dye present in the washing water (released by one or more garments) could be fixed to other garments of different color and cause thereon stains and/or changes of color.

Known products currently used (usually including a sheet of a particular material), for example, are placed in the washing machine drum during the fabrics washing, in order to reduce the presence of particles of dye possibly present in the washing water.

The object of the present invention is to propose a bag package for washing fabrics, in particular colored fabrics, which allows an efficient washing of the fabrics, preventing staining and consequently avoiding possible damaging thereof by particles of dye present in the washing water.

Moreover, the object of the present invention is to propose a package obtained by a simple technical solution, which is
extremely functional and cheap.

The above mentioned objects are obtained, in accordance with the contents of the claims, by a bag package for washing fabrics, in particular colored fabrics, including:

- at least a surrounding bag, enclosing a first space and permeable to a washing liquid and absorbing possible particles of dye present in the washing liquid during washing of said fabrics;
- an inner bag, contained within said surrounding bag and enclosing a second space;
- an additive, contained at least in said second space and released by said inner bag and surrounding bag during said washing, so as to be dissolved in said washing liquid.

**SUMMARY OF THE INVENTION**

The characteristic features of the invention will be pointed in the following description of some preferred, but not exclusive embodiments, with reference to the enclosed drawings, in which:

- Figure 1 is a perspective view of the proposed bag package, with one portion removed, in order to better point out the package inside;
- Figure 2 is a schematic, longitudinal section view of the package;
- Figures 2A is an enlarged view of the particular K of Figure 2;
- Figures 3, 3A are respectively a lateral view of the package and an enlarged view of the particular K of the same package in use configuration;
- Figures 4, 4A are respectively a lateral view of the
- Figure 5 is a schematic, perspective view of the package during a further using step;

- Figure 6 is a schematic, perspective view of an embodiment of the proposed package.

BEST MODES OF CARRYING OUT THE INVENTION

Having regard to Figures 1, 2, the reference numeral 100 indicates the proposed bag package for washing fabrics, in particular colored fabrics.

The package 100 includes a surrounding bag 1, defining thereinside a first space V1, and a inner bag 2, contained by the first surrounding bag 1 and defining thereinside a second space V2.

A prefixed quantity of an additive 3 is accommodated in the second space V2 and leaves the surrounding bag 1 and inner bag 2 during the washing, as it will be better explained later on.

The surrounding bag 1 includes a first sheet element 10 and a second sheet element 11, facing each other and having the edges joined to each other (for example by heat-welding), so that the first space V1 is defined between the elements 10, 11 (Figure 2).

The first sheet element 10 is preferably made of a porous material, e.g. non-woven fabric, soaked with at least one selected chemical substance, which fixes possible particles 4 of the coloring dye present in the washing liquid 5, to the first sheet element 10.

The second sheet element 11 is preferably made of a porous material, e.g. non-woven fabric, and can be soaked with the
above mentioned chemical substance.

According to an embodiment (not shown), the opposite surfaces of the first element 10 and of the second element 11 are covered with films of water-soluble material, or by a not uniform layer of water-soluble material.

The water-soluble material can act also as a glue in the heat-welding areas.

The inner bag 2 includes a third sheet element 20 and a fourth sheet element 21, facing each other and having the edges joined to each other (for example by heat-welding), so that the second space V2 is defined between the elements 20, 21 (Figure 2).

In particular, an inner layer 28 of the third sheet element 20 is made of a porous while an outer layer 29 thereof is made of a water-soluble material, which is aimed at being dissolved after the contact with the washing liquid 5 (for example water).

The structure of the fourth element 21 is preferably similar to the structure of the third element 20 (Figures 2A, 2B).

According to an embodiment, not shown as easy to conceive, the third sheet element 20 and the fourth sheet element 21 are made only of a film of water-soluble material, which cannot be eaten by the detergent contained in the inner bag 2.

According to a further embodiment, not shown as easy to conceive, the third sheet element 20 and the fourth sheet element 21 are made of a film of not water-soluble material and are joined to each other by a water-soluble glue.

The additive 3 is preferably a detergent in a liquid and/or gelatinized form.

Otherwise, the detergent can be in bars, or in granular
and/or powder form.

As an alternative solution, the additive 3 can be a fabric conditioner and/or an anti-felting substance, and/or a descaling substance.

According to an alternative embodiment, shown schematically in Figure 6, the surrounding bag 1 and the inner bag 2 have corresponding angular portions, respectively a first angular portion 15 and a second angular portion 25, which can be removed at the same time, in order to set the inside of the inner bag 2 in communication with the washing liquid 5.

In this embodiment, the surrounding bag 1 has the same characteristic features as described before, while an outer layer 29 of the third sheet element 20 and of the fourth sheet element 21, forming the inner bag 2 are made of a not water-soluble material.

The way of use of the proposed bag package 100 will be explained briefly, since it is easy to understand.

The use of the bag package 100 is particularly simple: actually, it is sufficient to put it into the drum of the washing machine together with the fabrics, for example clothes, to be washed.

The porosity of the material, of which the first element 10 and the third element 20 are made, allows the washing liquid 5 to enter the surrounding bag 1.

This causes the contact between the washing liquid 5 and the inner layer 29 of the third element 20 and of the fourth element 21 (Figure 2B).

Since the layer 29 are water-soluble, the contact with the washing liquid 5 allows the detergent to leave the inner bag 2 through the porous surfaces 28.

Thus, the detergent gets in contact only with the inner
portion of the surrounding bag $1$ and reaches the washing liquid $5$ through the porous walls of the surrounding bag $1$, so as to be dissolved therein, to allow the clothes washing (Figures 3, 3A).

It is obvious that a part of detergent is dissolved in the washing liquid $5$ present inside the surrounding bag $1$. In case of the third sheet element $20$ and the fourth sheet element $21$ being made only of a film of water-soluble material, the contact between the latter and the washing liquid $5$ allows directly the detergent to leave the inner bag $2$ and dissolve gradually.

If the third sheet element $20$ and the fourth sheet element $21$ are made of a film of not water-soluble material and are joined to each other by the water-soluble glue, the contact between the film and the washing liquid makes the elements $20$, $21$ to separate and consequently allows the detergent to leave the inner bag $2$.

Advantageously, the chemical substance, with which the first sheet element $10$ and the second sheet element $11$ are soaked, allows, during the washing, to eliminate possible particles of coloring dye present in the washing liquid $5$, fixing them to the elements $10$, $11$ (Figures 4, 4A, 5), thus protecting the washed clothes from possible stains.

With reference to the alternative embodiment shown in Figure 6, in order to use the bag package $100$, it is sufficient for the user to remove manually the angular portions $15$, $25$ before placing the package $100$ into the drum of the washing machine.

The removal of the angular portions allows the detergent to leave the surrounding bag $1$ and the inner bag $2$ and then dissolve in the washing liquid $5$.

It is deduced from the previous explanation that the
proposed bag package 100 for washing fabrics, in particular colored fabrics, including the surrounding bag 1, which can either absorb the possible particles 4 of dye present in the washing liquid 5, or be permeated by the detergent contained in the inner bag 2, allows an efficient washing of the fabrics and at the same time allows to prevent the clothes immersed in the washing liquid 5 from being stained, and consequently damaged by the particles 4.

Regards the alternative embodiment of Figure 6, it is deduced that it is easy for the user to remove the detachable portions 15, 25, which results in easiness of the package 100 use.

Advantageously, the proposed bag package 100 is extremely functional and cheap, because it is formed only by the surrounding bag 1, the inner bag 2 and the additive 3.

It is understood that the proposed invention has been described, with reference to the enclosed figures, as a mere, not limiting example. Therefore, it is obvious that any changes or variants applied thereto remain within the protective scope defined by the following claims.
CLAIMS

1. A bag package for washing fabrics, in particular colored fabrics, including:
   at least a surrounding bag (1), enclosing a first space (V1) and permeable to a washing liquid (5) and absorbing possible particles (4) of dye present in the washing liquid during washing of said fabrics;
   an inner bag (2), contained within said surrounding bag (1) and enclosing a second space (V2);
   an additive (3), contained at least in said second space (V2) and released by said inner bag (2) and surrounding bag (1) during said washing, so as to be dissolved in said washing liquid (5).

2. A bag package, according to claim 1, wherein said surrounding bag (1) includes a first sheet element (10) and a second sheet element (11), facing each other and defining walls of the surrounding bag (1), and having edges mutually joined, so as to define said first space (V1) between said first and second sheet elements (10, 11).

3. A bag package, according to claim 1, wherein said inner bag (2) includes a third sheet element (20) and a fourth sheet element (21), facing each other and defining walls of the inner bag (2), and having edges mutually joined, so as to define said second space (V2) between said third and fourth sheet elements (20, 21).

4. A bag package, according to claim 2, wherein at least a portion of said first sheet element (10) is made of a porous
material, soaked with at least one chemical substance, which fixes said particles (4) to the first sheet element (10).

5. A bag package, according to claim 2, wherein at least a portion of said second element (11) is made of a porous material, soaked with at least one chemical substance, which fixes said particles (4) to the second sheet element (11).

6. A bag package, according to claim 4, wherein said first sheet element (10) and said second sheet element (11) have a surface covered at least partially with a layer of water-soluble material.

7. A bag package, according to claim 3, wherein said third sheet element (20) is made of a film of water-soluble material.

8. A bag package, according to claim 3, wherein said fourth sheet element (21) is made of a film of water-soluble material.

9. A bag package, according to claim 3, wherein an inner layer (28) of said third sheet element (20) is made at least partially of a porous material and an outer layer (29) of the third sheet element is made at least partially of a material dissolving after contact with said washing liquid (5).

10. A bag package, according to claim 3, wherein an inner layer (28) of said fourth sheet element (21) is made at
least partially of a porous material and an outer layer (29) of the fourth sheet element is made at least partially of a material dissolving after contact with said washing liquid (5).

11. A bag package, according to claim 1, wherein said surrounding bag (1) and said inner bag (2) include detachable portions (15, 25) removable to set the inside of the inner bag (2) in communication with said washing liquid (5).

12. A bag package, according to claim 1, wherein said additive (3) is liquid.

13. A bag package, according to claim 1, wherein said additive (3) is gelatinized.

14. A bag package, according to claim 1, wherein said additive (3) has a granular and/or powder form.

15. A bag package, according to claim 1, wherein said additive (3) is in tablets.

16. A bag package, according to claim 1, wherein said additive (3) is a detergent.

17. A bag package, according to claim 1, wherein said additive (3) is a fabric conditioner.
18. A bag package, according to claim 1, wherein said additive (3) is an anti-felting substance.
A. CLASSIFICATION OF SUBJECT MATTER

According to International Patent Classification (IPC) or to both national classification and IPC:

INV. D06F39/02

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

D06F CIID

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched:

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal , WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Further documents are listed in the continuation of Box C

See patent family annex

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