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Description

The invention relates to a side-sealed bag of a piece of sheet sealed in the lower and in the upper and in at least one lateral edge region, said piece of sheet being composed of a sheet material which can be sealed on one side.

Side-sealed bags of a sheet material which can be sealed on one side have many applications, in particular for packaging flowable products. For the purpose of pouring out the contents, the upper edge region is completely or partially cut off by the user and the product is then poured out.

In the known side-sealed bags, it has proven disadvantageous that it is virtually impossible to pour the product out cleanly because of the lack of a pouring spout.

German Patent 3,244,762 has already disclosed a side-sealed bag for a flowable product, in which a discharge nozzle composed of a separately injection-moulded plastic is sealed into the sealed joint in the upper edge region. Although a discharge nozzle of this kind, sealed into the sealable sheet, is in principle suitable for producing clean pouring out, the introduction of a solid discharge nozzle of this kind into a side-sealed bag is nevertheless expensive.

US patent 2 772 823 discloses a foldable spout for a flexible bag. This foldable spout is attached parallel to the upper edge of the bag and held entirely inside the bag until it is opened. This foldable spout is attached inside the bag by means of staples or stitching and the bag is said as being sealed at its upper end as by means of stitching. Positioning of a spout on the top edge is not a very favourable location since good pouring from it requires an almost upside down movement of the filled bag, which can be rather cumbersome. Progressive tilting for pouring out of the corner of a bag is much more convenient.

Thus, the object on which the invention is based is to create a side-sealed bag of the type mentioned at the outset, from which the fluid product situated in the latter can be poured out cleanly after part of the upper edge region has been cut off, this bag being simple and economical to produce.

This object is achieved according to the invention by a pouring spout which, prior to the cutting off of a top corner of the bag is tucked in along a marking, and, after the cutting off of the corner region of the bag, folds outwards and comprises a corner piece which, when extended, is at least essentially triangular, is sealed, with the tip pointing downwards to the upper and the lateral edge region and is composed of the sheet material which can be sealed on one side.

It is furthermore proposed that the piece of sheet forming the pouring spout be provided centrally on its base side with a recess which permits the piece of sheet forming the bag or the pieces of sheet forming the bag to be sealed in the more limited corner region.

The side-sealed bag designed in accordance with the invention is preferably a flat-ended bag.

The invention is explained below with reference to a drawing, in which

Fig. 1 shows a representation of a side-sealed bag of this kind,

Fig. 2 shows a representation of the pouring spout in the extended condition, and

Fig. 3 shows a representation corresponding to Fig. 1, after a corner has been cut off and the pouring spout has folded outwards.

The side-sealed bag comprises a piece 16 of sheet (or two pieces 16, 17 of sheet) composed of a material which can be sealed on one side, which sheet (or sheets) is or are sealed in the lower edge region 10, in the upper edge region 12 and in the two lateral edge regions 14, 15.

In the corner region illustrated at the top left in Fig. 1, a corner piece 26 (illustrated in the extended state in Fig. 2) composed of a sheet material which can be sealed on one side is sealed, tucked in in the upper edge region 12 and the lateral edge region 14, with the tip pointing downwards, and, at that point where the corner piece 26 is inserted into the sealing groove of the corner regions 12, 14 of the piece 16 of sheet, the two faces of the pieces 16, 17 of sheet forming the side-sealed bag are not sealed to one another but are only sealed to the corner piece 26 forming the pouring spout 18.

On its base side, the corner piece 26, which is represented in the extended state in Fig. 2 and forms the pouring spout 18, is provided centrally with a recess 28 which makes it possible, in the more limited corner region of the pieces 16, 17 of sheet forming the side-sealed bag, for the two pieces forming the side-sealed bag to be welded, so that the bag is also closed in the region of the corner piece 26, and the two corners are thus not apart.

For the purpose of pouring out, the upper edge region of the pieces 16, 17 of sheet forming the flat-ended bag is cut off along the line 30 marked on the bag, with the result that the region in which the corner piece 26 is sealed to the upper edge region 12 of the pieces 16, 17 of sheet is severed completely, and the region in which the corner piece 26 is sealed to the edge region 14 is severed in the upper region. After the cut-open bag has been tilted to the side, the tucked-in central region of the corner piece 26, which is sealed to the pieces 16, 17 of sheet only in its edge region, folds

outwards to form a pouring spout 18, the bag thus assuming the position illustrated in Fig. 3. It is now a simple matter to pour out the product accommodated by the bag, since said product is guided by the outwards-folded pouring spout 18.

The design proposed according to the invention of a pouring spout facilitating the pouring out of the contents is particularly suitable in the case of a side-sealed bag which, having been designed as a flat-ended bag, has a base element in its lower edge region.

Claims

1. Side-sealed bag of a piece (16, 17) of sheet sealed in the lower (10) and in the upper (12) and in at least one lateral edge region (14), said bag comprising a pouring spout (18) which, prior to the opening of the bag, is entirely located inside the upper and edge regions (12, 14) of the bag, characterized in that said piece of sheet is composed of a sheet material which can be sealed on one side, said pouring spout (18) is tucked in along a marking (30), and, after the cutting off of the corner region of the bag, folds outwards and comprises a corner piece (26) which, when extended, is essentially triangular, is sealed, with the tip (20) pointing downwards, in the upper lateral edge region (12, 14) and is composed of sheet material which can be sealed on one side.
2. Side-sealed bag according to Claim 1, characterized in that the piece (26) of sheet forming the pouring spout (18) is provided centrally on its base side with a recess (28) which permits the piece(s) (16, 17) of sheet forming the bag to be sealed in the more limited corner region.
3. Side-sealed bag according to Claim 1 or Claim 2, characterized in that it is designed as a flat-ended bag.

Patentansprüche

1. Seitenversiegelte Tasche aus einem Stück (16, 17) Blattmaterial, das im oberen (10) und im unteren (12) sowie in zumindest einem seitlichen Kantenbereich (14) versiegelt ist, wobei die Tasche eine Ausgießtülle (18) aufweist, die vor dem Öffnen der Tasche zur Gänze im Inneren der oberen und seitlichen Bereiche (12, 14) der Tasche angeordnet ist, dadurch gekennzeichnet, daß das Blattmaterialstück aus einem Blattmaterial besteht, welches auf einer Seite versiegelt werden kann, wobei die

Ausgießtülle (18) über eine Markierung (30) einwärts gefaltet ist und sich nach dem Wegschneiden des Eckbereiches der Tasche nach außen faltet und ein Eckstück (26) umfaßt, welches im ausgebreiteten Zustand im wesentlichen dreieckig, mit nach unten weisender Spitze (20) im oberen Seitenkantenbereich (12, 14) versiegelt und aus einem Blattmaterial gebildet ist, welches auf einer Seite versiegelt werden kann.

2. Seitenversiegelte Tasche nach Anspruch 1, dadurch gekennzeichnet, daß das die Ausgießtülle (18) bildende Blattmaterialstück (26) zentral auf seiner Basisseite mit einem Ausschnitt (28) versehen ist, welcher ein Versiegeln der (des) die Tasche bildenden Blattmaterialstück(e)s (16, 17) in dem begrenzten Eckbereich gestattet.
3. Seitenversiegelte Tasche nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß sie als Tasche mit flachem Ende ausgebildet ist.

Revendications

1. Poche scellée latéralement en un seul élément (16, 17) de feuille scellé dans la région inférieure (10) et dans la région supérieure (12) et dans au moins une région de bord latéral (14), ladite poche comprenant un bec verseur (18) qui est entièrement positionné, avant l'ouverture de la poche, à l'intérieur des régions supérieure et de bord (12,14) de la poche, caractérisée en ce que ledit élément de feuille est composé d'une matière de feuille qui peut être scellée sur un côté, ledit bec verseur (18) est rentré à l'intérieur le long d'un marquage (30) et se déplie vers l'extérieur quand la région d'angle a été coupée et comprend un élément (26) d'angle qui est sensiblement triangulaire après avoir été mise en extension, est scellé, la pointe (20) tournée vers le bas, dans la région supérieure et la région de bord latéral (12, 14) est composé d'une matière en feuille qui peut être scellée sur un côté.
2. Poche scellée latéralement selon la revendication 1, caractérisée en ce que l'élément (26) de feuille formant le bec verseur (18) comporte au centre, sur son côté de base, un évidement (28) qui permet à l'élément ou aux éléments (16, 17) de feuille formant la poche d'être scellés dans la région d'angle plus limitée.
3. Poche scellée latéralement selon la revendication 1 ou la revendication 2, caractérisée en ce que sa structure est celle d'un poche à extré-

mité plate.

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