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(54) Titre : Plastic film.

(57) Abrégé :

Plastic film (1, 21), especially for packaging three-dimensional objects that are formed preferably during the packaging process, such as soup cubes in particular, with a base film (2, 22) made from a polyolefin or polyethylene terephthalate that is preferably metallised on one side, where an oriented polypropylene film, preferably a biaxially oriented polypropylene film or a PET film, is provided as the base film (2, 22), on the side of which with the metallisation (3) printing (5) is provided, while a preferably ribbon-shaped pattern coating of cold seal adhesive (6) is applied to the side of the base film (2, 22) facing away from the metallisation (3).

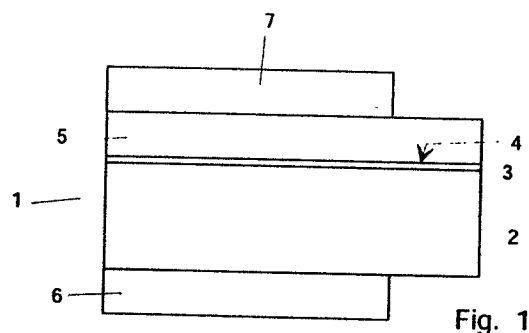


Fig. 1

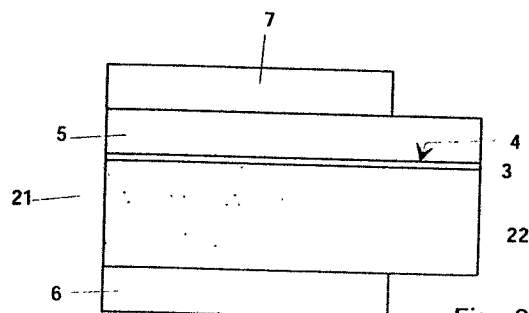


Fig. 2

Description

Plastic film

The invention relates to a plastic film, especially for packaging three-dimensional objects that are formed preferably during the packaging process, such as soup cubes in particular, with a base film made from a polyolefin that is metallised on one side.

DE-A-100 21 687 discloses such a film, that is provided on at least one side with an adhesive or sealing layer.

On the basis of this, the aim of the invention is to design a plastic film of the kind outlined above in such a way that it can be produced efficiently and provides the object that is to be packaged with optimum protection.

In the solution to this problem proposed by the invention, an oriented polypropylene film, preferably a biaxially oriented polypropylene film or a PET film, is provided as the base film, on the side of which with the metallisation printing is provided, while a

preferably ribbon-shaped pattern coating of cold seal adhesive is applied to the side of the base film facing away from the metallisation.

Only the amount of the cold seal adhesive provided to close a pack produced from a section of the plastic film that is needed to achieve a sufficiently tight closure is applied.

In accordance with an advantageous further development of the invention, the printing is covered to some extent by a pattern coating of release lacquer, with the areas to which the lacquer is applied coinciding with those to which the cold seal adhesive is applied.

This is an effective way to prevent layers of the plastic film located on top of each other sticking together when the film is wound to form a reel.

It has proved to be very advantageous in another further development of the invention if a primer and / or tie layer is provided between the metallisation and the printing.

A durable bond between the printing and the metallisation is achieved as a result.

In another advantageous further development of the invention a compact film is provided as the base film.

A film with cavities in it can, however, be provided as the base film in accordance with the invention too.

Light refraction occurs on the edges surrounding the cavities and makes the film opaque.

In accordance with the invention, the cavities can take the form of vacuoles that are produced when the film is oriented.

Another possible way to create the cavities is to produce them by foaming the film.

It has proved to be very advantageous if in accordance with the invention the compact base film has a thickness of about 10 to 100 μ , preferably 20 to 50 μ and in particular 28 to 32 μ .

In accordance with another advantageous further development of the invention, the base film with cavities in it has a thickness of about 10 to 100 μ , preferably 20 to 50 μ and in particular 35 to 42 μ .

Two embodiments of the invention are illustrated in the drawings:

Fig. 1 is a diagram of the structure of a plastic film with a compact base film that is metallised on one side and

Fig. 2 is a diagram of another plastic film with a base film that has cavities in it.

1 in Fig. 1 is a plastic film that has a base film 2 made from oriented polypropylene (OPP) 30 μ thick. This base film 2 is provided with metallisation 3 on one side to which printing 5 has been applied via a primer and / or tie layer 4. The base film 2 is provided with a pattern coating of cold seal adhesive 6 on its side facing away from the printing and / or metallisation. The printing 5 is provided on the other side with a release layer 7 that is located in accordance with the cold seal adhesive coating. When the plastic film is wound into a reel, the cold seal adhesive and the release layer 7 are located on top of each other and thus prevent the cold seal adhesive 6 from sticking to the adjacent side of the plastic film.

The base film can consist of PET instead of OPP.

An appropriate structure for a plastic film 21 is shown in the embodiment illustrated in Fig. 2. The base film 22 consists, however, of an opaque, oriented polypropylene film (OPP), the opacity of which is produced by vacuoles created during orientation. This base film is 38 μ thick and is again provided on one side with metallisation 3, to which a primer and / or tie layer 4 is applied. This primer layer enables the subsequently applied printing 5 to bond securely. The side of the base film 22 facing away from the metallisation has a pattern coating of cold seal adhesive 6, application of which is provided in accordance with a release layer 7 applied to the printing 5, which prevents the cold seal adhesive from sticking when the plastic film is wound into a reel.

In order to improve the windability of the plastic film, the areas next to the release layer and / or the cold seal adhesive can be filled up with coatings too.

The base film can have been given its opacity by foaming too, with light refraction also occurring on the bubbles produced inside.

Claims

1. Plastic film (1, 21), especially for packaging three-dimensional objects that are formed preferably during the packaging process, such as soup cubes in particular, with a base film (2, 22) made from a polyolefin or polyethylene terephthalate that is preferably metallised on one side, **wherein** an oriented polypropylene film, preferably a biaxially oriented polypropylene film or a PET film, is provided as the base film (2, 22), on the side of which with the metallisation (3) printing (5) is provided, while a preferably ribbon-shaped pattern coating of cold seal adhesive (6) is applied to the side of the base film (2, 22) facing away from the metallisation (3).
2. Plastic film according to claim 1, **wherein** the printing (5) is covered to some extent by a pattern coating of release lacquer (7), with the areas to which the lacquer is applied coinciding with those to which the cold seal adhesive (6) is applied.
3. Plastic film according to claim 1 or 2, **wherein** a primer and / or tie layer (4) is provided between the metallisation (3) and the printing (5).

4. Plastic film according to claim 1, 2 or 3, **wherein** a compact film is provided as the base film (2).
5. Plastic film according to claim 1, 2 or 3, **wherein** a film with cavities in it is provided as the base film (22).
6. Plastic film according to claim 5, **wherein** the cavities take the form of vacuoles that are produced when the film is oriented.
7. Plastic film according to claim 5, **wherein** the cavities are produced by foaming.
8. Plastic film according to claim 4, **wherein** the compact base film (2) has a thickness of about 10 to 100 μ , preferably 20 to 50 μ and in particular 28 to 32 μ .
9. Plastic film according to claim 5, **wherein** the base film (22) with cavities in it has a thickness of about 10 to 100 μ , preferably 20 to 50 μ and in particular 35 to 42 μ .