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(54) Title: A MATERIAL, PREFERABLY IN STRIP FORM, FOR USE AS WRAPPING MATERIAL (57) Abstract When wrapping with sheets, such as sheets of paper or of other material, one side must be provided with adhesive. Known sheets, covered on one side with adhesive, are provided with a release sheet which must be removed prior to use. The invention relates to a wrapping not provided with said release sheets, this being enabled by the use of a dispersion glue.		

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A MATERIAL, PREFERABLY IN STRIP FORM, FOR USE AS WRAPPING MATERIAL

The present invention relates to a material which can be used as wrapping material, protective material or insulating material. The material is in sheet or strip form. Strip form is generally preferred since the material can be wound onto a core and this is especially suitable for material of film-like character or for thickness from film and upwards. The material is provided with an adhesive on one surface. This is to allow the material to be secured on a product to be wrapped, or on a wall to be covered or an object to be provided with insulation. If such material with adhesive is to be manageable, the side provided with adhesive must also be provided with a protective layer, preferably of paper. The protective layer may also be termed release paper. For the material can be used, the protective layer must be removed. This is a troublesome operation and the adhesive is often so strongly adhesive that it easily adheres to the user.

The object of the present invention is to create a material in which the use of release paper is obviated and in which both the material and the adhesive used are of such a type that if the material with adhesive comes into contact with the user, or with a surface to be covered, it can be removed without leaving anything behind on the surface coming into contact with the material and, furthermore, without taking with it any of the material from said contact surface.

A material which has proved exceptionally suitable for this purpose is a layer of foam plastic, said layer consisting of polythene or of a foam plastic having the same properties as polythene.

A suitable adhesive is a dispersion glue designated Plattonal 1206, manufactured by Svenska Limfabriken AB, Landskrona.

The adhesive may also include acrylic rest monomers and a formaldehyde-based preservative.

According to the present invention it is suitable to use a strip-like material which can be wound onto a core with the adhesive layer facing in, the material and the adhesive layer having the properties mentioned above.

5 Other features characteristic of the present invention are revealed in the accompanying claims.

According to the present invention a strip-shaped material is used, said material having such a surface that upon contact with an adhesive, the adhesive shall attach to the material but if the adhesive is removed it shall become entirely detached without leaving any adhesive remnants on the surface of the material and without taking with it any part of the material. If this is to be possible, the material surface must be extremely smooth and in certain cases have a greasy surface. The invention is primarily intended for use on a strip of material consisting of foam plastic, the foam plastic consisting of polythene, and where both thickness and strip width can vary within wide limits.

A strip according to the present invention is manufactured by mixing a polythene in granular form with small quantities of additives in powder form intended to initiate the formation of bubbles. The mixture is fed in a first step to a two-step extruder of screw type and the mixture is heated to about 200°C. The melt obtained is supplied to the second extruder step where the temperature is lowered to 100° - 150°C, and is then extruded through an annular nozzle. A porous hose is obtained, which is then cooling internally and externally with air and slit in the longitudinal direction to provide a strip of foam plastic. Parallel-epipedic bodies may of course be produced instead of strip. The strip produced is wound onto a core and the outermost end is passed to an adhesive station where adhesive is applied to the under side of the strip. The adhesive is one designated Plattonal 1206, manufactured by Svenska Limfabriken AB, Landskrona. The adhesive is a dispersion glue and obviously any other glue having the same properties may be used. After being provided with a layer of adhesive the strip is carried along

a drying tunnel some 5 10 m in length. The glue on the strip is dried in said tunnel and, after passage through the tunnel, its adhesive properties are such that it can be applied on an object and also be removed from an object without any remnants remaining or being removed.

5 The strip with the dried adhesive is wound onto a core with the coated side of the strip facing in. The finished roll is easy to handle since there are no sticky surfaces. When the wrapping material is to be used, the roll can be placed in a stand and a suitable length of the material can be pulled out and cut off. The object is then wrapped with the strip

10 and the wrapping adheres and seals well around the object, thus eliminating the need for string or tape.

If the material is manufactured in sheet form, the sheets can be stacked on top of each other, and a sheet taken from the stack as needed.

Material according to the present invention, consisting of foam plastic,

15 has many applications and can be used for wrapping bottles, applied on surfaces as insulation, as well as innumerable other applications. The present wrapping is particularly suitable for bottles and is superior to known wrappings such as a tube of corrugated cardboard or foam plastic which is fitted over the bottle.

CLAIMS

1. A material, preferably supplied rolled up in strip form for use as wrapping material, said material being used after being unwound and possibly torn off and being provided on one side with adhesive material, characterised in that the strip has the nature of foam plastic, that the adhesive material is such that it adheres detachably to uncoated parts of said foam plastic and other optional solid materials such as cardboard, glass, metal, wood and so on and that, when separated from the surface of said material to which it has been adhered, no portions of the adhesive material are left on said surface, nor does any of said surface come off with the adhesive material.


2. A material as claimed in claim 1, characterised in that it consists of polythene.

3. A material as claimed in claim 1, characterised in that the adhesive material consists of dispersion glue.

4. A method of manufacturing material according to one or more of the preceding claims, characterised in that after application of the adhesive material on the foam plastic, the coated plastic is subjected to drying before being wound up without release film.

INTERNATIONAL SEARCH REPORT

International Application No PCT/SE89/00066

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ⁶		
According to International Patent Classification (IPC) or to both National Classification and IPC ⁴		
B 65 D 65/14 // C 09 J 7/02		
II. FIELDS SEARCHED		
Minimum Documentation Searched ⁷		
Classification System	Classification Symbols	
IPC 4	C 09 J 7/02; B 32 B 7/06; B 65 D 57/00, 65/02, /14, /42, 85/66, /67	
US C1	206:447, 389, 411, 484, 524.1, 524.3; 229:37	
Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched ⁸		
SE, NO, DK, FI classes as above		
III. DOCUMENTS CONSIDERED TO BE RELEVANT ⁹		
Category ¹⁰	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	EP, A2, 0 246 723 (SETON COMPANY) 25 November 1987 & US, 4675232	1, 3, 4
A	SE, B, 416 136 (OXFORD CHEMICALS) 1 December 1980	
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IV. CERTIFICATION		
Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report	
1989-06-06	1989 -06- 1 5	
International Searching Authority	Signature of Authorized Officer	
Swedish Patent Office	 Helena Akerlund	