

In addition, the material may be used as a gas absorber, such as phosphine, making up "pads" for use in hermetically sealed flasks, such pads being made of the same material as the bags, with a mixture of chemical non-toxic powder for the absorption of gases found in flasks, containers or other kinds of packing.

PRACTICAL TESTS

The applicator bag containing the pesticide manufactured with the 100% polyester non-woven polymer was submitted to some practical tests so as to verify its behavior under possible misuse.

The bags, according to the invention, were filled with 34 g of aluminum phosphide. Results were as follows:

DRIP TEST

A bag was placed in a glass vat of 2-liter capacity. Through a drip funnel, water at 70 degrees Centigrade was dripped onto the bag during one hour, at the rate of one drop per second. Test was performed at room temperature; no ignition occurred in the bag.

SPRINKLE TEST

A bag was placed in a glass vat of 2-liter capacity; 10 ml of water, at room temperature, were sprayed on same by means of a sprinkler. For the full extent of one hour, the bag was sprayed every fifteen minutes with 10 ml of water. Test was performed at room temperature; no ignition occurred in the bag.

BATH TEST

A bag was placed in a metallic container and water at room temperature added until the bag was covered. Test was performed at room temperature and it was found that, after four hours, no ignition occurred in the bag.

POWDER TEST

15 grams of aluminum phosphide in powder form were weighed and placed in 1 150 ml narrow-shaped beaker. The whole was then heated up to 50 degrees Centigrade, by means of an electric heater. Upon reaching a temperature of 35 degrees Centigrade, 5 ml of water at room temperature were added with a pipette. The beaker was left to rest for an hour at room temperature and no ignition of the bag occurred.

Proof of the better physical quality of the bag material, contemplated under this invention, as compared with other existing materials, can be ascertained from the results of tests performed, in accordance with the following table:

	Non-woven 100% Poly- ester	Non-woven 100% poly- ethylene	Non-woven Cellulose/ Fiber
Weight/area (g/m ²)	95	75	87
Thickness (mm)	0.170	0.210	0.300
Resistance (kgf/5cm)			
Stretching (%)			
Breaking point Lengthwise	36/30	38/60	19/24
Resistance (kgf/5cm)			
Stretching (%)			

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	Non-woven 100% Poly- ester	Non-woven 100% poly- ethylene	Non-woven Cellulose/ Fiber
Breaking point Crosswise	26.5/33	45/70	3.8/35
Tear resistance (kgf)			
Lengthwise	8.4	1.60	0.25
Tear resistance (kgf)			
Crosswise	7.7	2.00	0.45
Abrasion 1,000 cycles; strain 1 kgf/cm ² lengthwise			

None of the materials showed wear.

What is claimed is:

1. A pest control applicator formed of a gas-permeable reinforced non-woven 100% polyester self-sealing film material comprising a grid consisting of fibers of a thermosetting polyester, and an aqueous-based paste with thermosetting properties of the same original chemical base as the grid fibers but having a different molecular arrangement, and having a melting or softening point lower than the thermosetting polyester of the grid fibers, said paste filling the spaces between the grid fibers and heat and pressure bonded to the grid fibers.
2. A pest control applicator formed of a gas-permeable reinforced non-woven, 100% polyester self-sealing film material comprising a grid including a base of thermosetting polyester yarn and top and bottom layers of fibers of the same thermosetting polyester overlying the base yarn, and an aqueous-based paste filling spaces between the grid yarn and fibers and with thermosetting properties of the same original chemical base as that forming the yarn and fibers but having a different molecular arrangement and a melting or softening point lower than the yarn and fiber polyester and heat and pressure bonded to the grid yarn and fibers.
3. An applicator according to claim 2, wherein the yarn has a diameter of about 0.5 to 10 microns and the overlying fibers have a diameter of about 1-6 dTex.
4. An applicator according to claim 2, wherein the polyester is a copolmer of terephthalic acid monomers and ethylene glycol.
5. An applicator according to claim 4, wherein the grid yarn and fiber polyester has a melting point of about 200 to 280 degrees Centigrade and the paste polyester has a melting point of about 80 to 160 degrees Centigrade.
6. An applicator according to claim 3, wherein the polyester is a copolymer of terephthalic acid monomers and ethylene glycol.
7. An applicator according to claim 6, wherein the grid yarn and fiber polyester has a melting point of about 200 to 280 degrees Centigrade and the paste polyester has a melting point of about 80 to 160 degrees Centigrade.
8. An applicator according to claim 7, wherein the base yarn is present in a weight per unit area of film material of about 8 to 40 g/m², the overlying polyester fibers are present in a weight per unit area of film material of about 30 to 70 g/m², and the polyester paste is present in a weight per unit area of film material of about 5 to 50 g/m².
9. A pest control applicator according to one of claims 1-8, wherein the film material has an air permeability of about 5 to 25 m³/m²-minutes.

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