

## Deodorant Thread **DEODOREY** - Woven tape **DeodoranTape**

Deodorant thread **DEODOREY** is the revolutionary thread that is made from the nanotechnology-based gas-adsorbing fiber, which adsorbs and neutralizes body odor molecules in the air.  
**DeodoranTape** is the tape which is woven of Polyester thread (warp) and deodorant thread (woof).

### How to apply **DeodoranTape** to products

**DeodoranTape** has been originally used for printed clothing tags such as a washing instruction tag in Japan. Recently, due to its easy-to-use shape like a ribbon, its usage was reconsidered and the range of its usage is becoming wider than before. You can use it as a whole/partial material of the personal items which contact with the skin directly or of the bags which hold the sweaty clothes/linens.

Possible applications of **DeodoranTape** are;

- Clothing items: Lining of a collar, Lining of a neck-tie, etc.
- Athletic items: Inside lining of a cap, Inside of a sport bag, Sleeping bag, Sport shoes, etc.
- Other items: Lining of wigs/hairpieces, Slip-stopping of a hanger, Strip of a helmet, Slippers, Insoles, Shoes, etc.



**DEODOREY - Woven tape "DeodoranTape"**

### Features of Deodorant Thread **DEODOREY**

#### [Feature 1] Deodorizing Human Body Odors

The components (urea, fatty acid, keratin, etc.) of sweat and dead skin surface are oxidized or decomposed by bacteria on the skin surface, and changed to odor components. (See Fig-1) An aromatic makes unpleasant smell less noticeable, but **DEODOREY** deodorizes them by adsorbing and neutralizing odor molecules. (See Fig-2)

(\*) Components of perfume are not deodorized by **DEODOREY**.

(\*) Components (Acetaldehyde, Pyridine & Hydrogen) of tobacco odor are not deodorized by **DEODOREY**.

#### [Feature 2] Strong & Speedy Deodorizing Ability

Since the surface area of **DEODOREY** is large because of its fibrous structure, it has the remarkable deodorizing ability, which is stronger 5-20 times than existing deodorizer like activated carbon, and can make sweat odors deodorized for a short time.

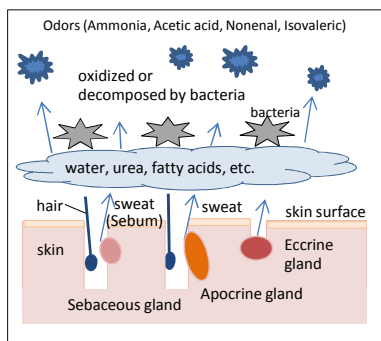
(\*) Only 3 grams (0.1 ounce, 80 yards) of **DEODOREY** can adsorb and neutralize 98% of initial Ammonia gas 100ppm in 20 minutes. (Test report by Japan Synthetic Textile Inspection Association)

#### [Feature 3] Long-life Deodorizing Ability

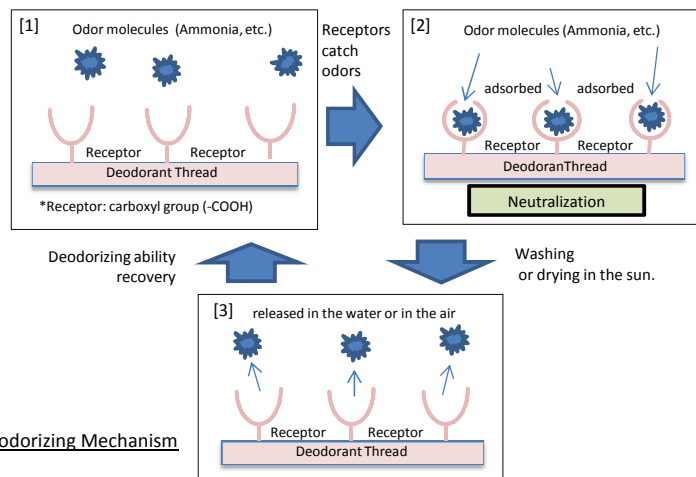
The deodorizing ability is not declined by washing. On the contrary, washing makes adsorbed odors released in the water and drying in the sun makes them released in the air so that the deodorizing ability can be recovered. (See Fig-2) It lasts almost indefinitely.

<Specifications> - Custom-made  
 Tape width: 5mm - 36mm  
 Length per piece: 3m - 5m (average 4m)  
 (One roll contains about 30 pieces)  
 Warp: Polyester  
 Woof: "**WeftYarn**" **Type-N** or **Type-NS**  
 (deodorant thread: 11m per 10cm-tape (W30mm))  
 Weave type: Twilled, Grosgrain and Satin.  
 Color: Pinkish white  
 Usage: a inside lining of a cap/wig, etc.

<Deodorant Weaving Thread "**WeftYarn**">  
**Type-N:**  
 Polyester 70%  
 Acrylate 30%  
 (deodorizing fiber)  
**Type-NS:**  
 Polyester 65%  
 Acrylate 35%  
 (deodorizing & Anti-bacterial fiber)  
 (\*) Anti-bacterial fiber has an ability to prevent bacteria on the skin surface from propagating by the effect of +Ag (Silver ion).



[Fig-1] Body Odor Production Mechanism



[Fig-2] Deodorizing Mechanism

### Application Consideration/Precaution of Deodorant Thread **DEODOREY**

- In the case that the used length of **DEODOREY** is too short, you cannot get the expected deodorant effect. If you use 25-75m/10cm<sup>2</sup> (28-83yards/4 inch<sup>2</sup>) of **DEODOREY** for your product, it may comply with the standards "Deodorant processed textiles certification criteria" published by Japan Textile Evaluation Technology Council. However, as this is one of the guidelines, you need to ask the designated examining organizations to verify if your product acquired expected deodorant ability or not.
- It is possible to yarn-dye and piece-dye **DEODOREY** in faint (light) colors and light deep colors. However, **DEODOREY** must be dyed under the specified conditions in order to avoid losing its deodorizing ability. If it is necessary to dye **DEODOREY** by yourself, please contact EmmaCreation in advance. Also, if you wish dyed **DEODOREY**, please send your inquiry to EmmaCreation.
- Since **DEODOREY** contains the deodorant fiber which is difficult to dye in dark (deep) colors, **DEODOREY** itself cannot be dyed in dark colors perfectly.