

**GENERATING HEAT ONLY BY WEARING**

THE COMFORTABLE MATERIAL EXCELLENT IN TEMPERATURE  
CONTROL OR HUMIDITY REGULATION



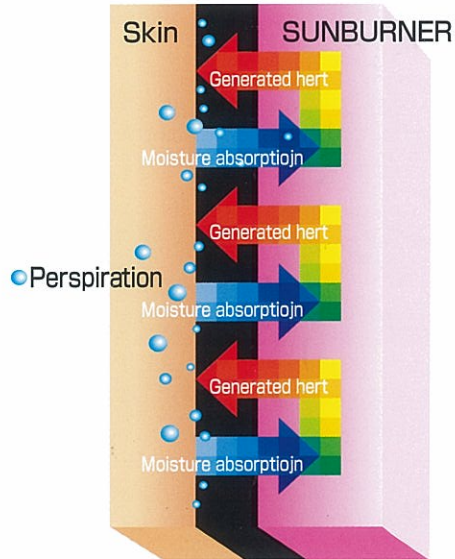
**SunBurner**

TOHO TEXTILE CO., LTD.



# GENERATING HEAT ONLY BY WEARING

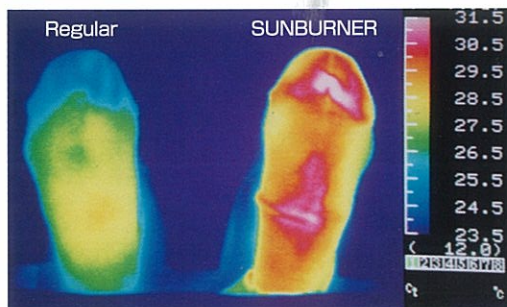
THE COMFORTABLE MATERIAL EXCELLENT IN TEMPERATURE CONTROL OR HUMIDITY REGULATION



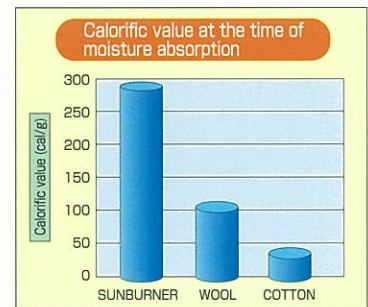
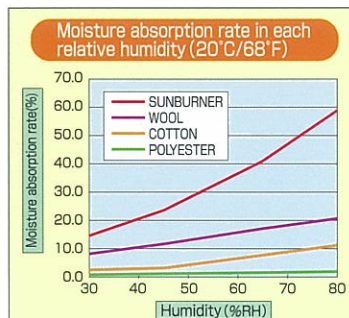
"SUNBURNER" is a revolutionary functional fabric which generates heat by absorption of moisture. The heat generated when the fibers absorb moisture (the absorption heat) is extremely large with approx. 3 times of that of wool, and in addition, this almighty multi-function material has other functions like deodorizing, pH-buffering, water absorption, reduction of static electricity, flame resistance, etc.

## HEAT GENERATED BY MOISTURE ABSORPTION

"Moisture absorption heat" is called the heat which generate when a fiber absorbs moisture surrounding itself and "SUNBURNER" applies the principle. "SUNBURNER" generate large amount of moisture absorption heat by making many hydrophilic groups hold on by improvement of a fiber's surface, and raising the absorption capability of surrounding moisture. The ability to generate a large quantity of moisture absorption heat of "SUNBURNER" is excellent, this ability is 3 times as high as that of wool fabric.



METHOD : Under standard condition (temperature 20 C humidity, 65% RH) sample (socks) was dried, person wore sample (socks) and surface temperature was observed

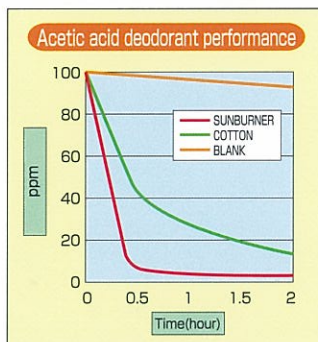


(25°C/77°F 80.5%RH): Measurement of the moisture absorption heat

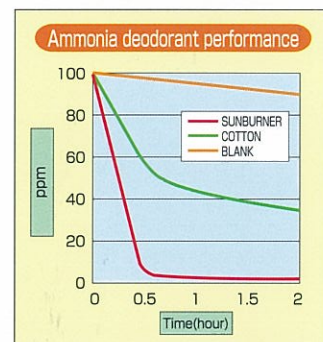


## DEODORIZING EFFECT

As "SUNBURNER" also has a deodorizing effect in regard to ammonia etc., it is a clean and pleasant material.



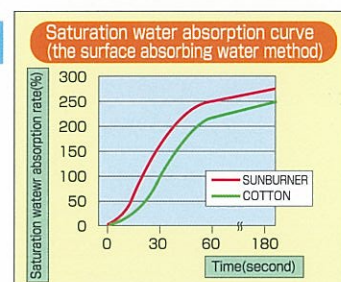
Conforming to the method of the Quality Performance Countermeasure Council for apparel etc.  
Room temperature 20°C, humidity 65%



Conforming to the method of the Quality Performance Countermeasure Council for apparel etc.  
Room temperature 20°C, humidity 65%

## WATER ABSORPTION

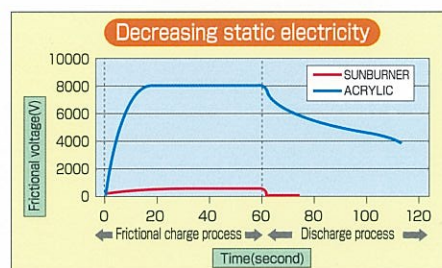
The water absorption of "SUNBURNER" is better than cotton, it is comfortable textile fabric at the feeling of wearing which absorbed perspiration quickly, is not sticky.



JIS-L-1907

## DECREASING STATIC ELECTRICITY

Since "SUNBURNER" has the excellent effect which decreases static electricity which happens to a winter season, and prevents coiling round of clothing.



Frictional voltage : Rotary static tester 20°C/68°F 45%RH  
JIS-L-1094 B

## PH-BUFFERING

"SUNBURNER" can return to the neutral pH value if the pH shifts to the acetic or the alkaline side since "SUNBURNER" has itself a pH buffer effect.

## FLAME-RESISTANCE

"SUNBURNER" provides itself flame resistant properties. LOI<sup>※</sup> is very high (as much as 35-36), and development for various uses is possible.

※ LOI : limiting oxygen index method : JIS-K-7021

## SAFETY

"SUNBURNER" is checked safety by the skin pasting examination of a human body.