



EXCELLENT HEAT INSULATION 卓越的保溫力

NEORON® is a fiber with low heat conductivity. It has excellent heat insulation capabilities to prevent loss of body heat, keeping your body temperature consistent.

妮美龍是一種導熱性能低的纖維。它具有卓越的保溫力，可防止體內熱能流失，讓您保持正常體溫。

Insulation Rate Comparison, 保溫性比較測定

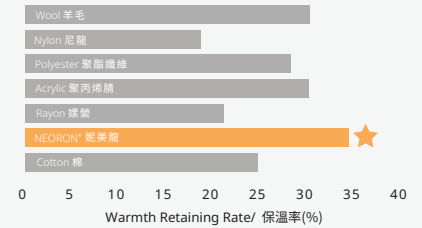


Experiment unit 實驗單位:
UNITIKA Garment Technology Co., Ltd. Research Laboratory Division
日本UNITIKA株式會社的研究實驗室

Testing method 測試方法:
The test environment is set to a temperature of 20°C and a humidity of 65%. The mannequin's temperature is controlled at 36°C and shirts made from NEORON® and cotton are put over it for 1 hour respectively and a thermal imaging equipment is used to capture the shirt's surface.
測試環境設定為溫度攝氏20°C、濕度65%，暖體假人的溫度控制在攝氏36°C，再為暖體假人分別穿上妮美龍和棉面料的上衣，進行1小時的測試。之後用熱成像儀拍攝暖體假人上的衣物表面。

Test result 測試結果:
The fabric with good thermal insulation will appear blue on the imaging which indicates a lower surface temperature. The fabric with poor thermal insulation indicates a higher surface temperature and appears red.
保溫力好的面料表面溫度低、呈現藍色，保溫力差的面料表面溫度高、呈現紅色。

Warmth Retaining Rate, 保溫率



Experiment unit 實驗單位:
Japan Textile Products Quality and Technology Center
一般財團法人日本纖維製品品質技術中心

Testing method 測試方法:
Test cloths made of different fibers are placed on the radiating plate that is set at 36°C for 2 hours. The difference between the amount of electricity required to maintain the test cloths at 36°C and to maintain the radiating plate without any test cloth are recorded.
不同纖維的測試布放於設定為攝氏36°C的熱板上。2小時後，記錄測試布要維持攝氏36°C所需的電量；另一方面，再測出未放置測試布的熱板在2小時內要維持攝氏36°C所需的電量。

Test result 測試結果:
The larger the difference, the better the warmth retaining rate.
兩者所需的電量差就是保溫率；當電量差距越大，其保溫率越好。

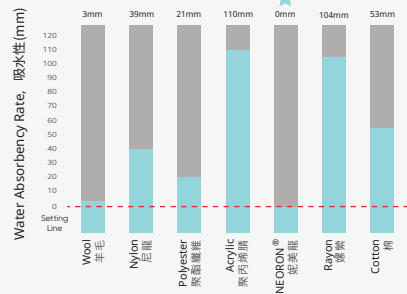


SUPERIOR MOISTURE PERMEABILITY 清爽的觸感

When fibers are wet, water will evaporate, taking some of the heat away from the material. Therefore, your body temperature will drop. NEORON® fiber does not absorb water or perspiration. It dries quickly, keeping skin dry, comfortable and warm.

當纖維含有水分時，水分會蒸發，並帶走體內中的熱能，使體溫下降。妮美龍纖維不吸水也不吸汗，且易乾，讓人覺得乾爽、舒適和溫暖。

Water Absorbency Rate Comparison, 吸水性測試



Experiment unit 實驗單位:
Japan Textile Products Quality and Technology Center
一般財團法人日本纖維製品品質技術中心

Testing method 測試方法:
Different fiber test cloths are prepared with a horizontal line drawn 2cm from the lower edge of each piece of cloth. They are then fixed on a rod supported above a basin with the height adjusted so that the lower edge of each cloth is immersed in colored water. After 10 minutes, the rising height of the colored water is measured from the drawn horizontal line.
在不同纖維的測試布下端2厘米畫一條橫線。將測試布固定在支撐於水槽上方的杆上，調整高度使測試布下端浸入有顏色的水中。10分鐘後，測量水在測試布上到達的高度（線以上計算）。

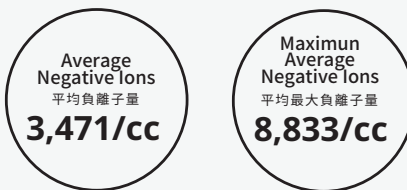


ULTRA STRONG NEGATIVE STATIC ELECTRICITY • NEGATIVE IONS 超強的負靜電 · 負離子

NEORON® fiber will generate negative static electricity • negative ions through friction, by rubbing against the skin or other fibers.

妮美龍透過與肌膚或其他纖維之摩擦，能產生負靜電 · 負離子。

Average Negative Ions, 負離子量



Experiment unit 實驗單位:
UNITIKA Garment Technology Co., Ltd. Research Laboratory Division
日本UNITIKA株式會社的研究實驗室

Testing method 測試方法:
The test environment was set to a temperature of 20°C and a humidity of 40%. AS001 (100% NEORON®) was affixed on the testing device for 1 minute and then rubbed for 30 seconds. These steps were repeated 3 times, data collected each round was recorded.

在室溫20°C、濕度40%的測試環境下，於測試器裝上AS001產品(100%妮美龍)。將測試器靜置1分鐘，再摩擦測試布30秒，重複3次相同的步驟，記錄其資料。



OUTSTANDING FLAME RETARDANCY 極佳的阻燃性

NEORON® is a retardant material that is able to contain the spread of flames. The NEORON® bedsheets and blankets are recognized as a fire retardant product by Japan Fire Retardant Association.

妮美龍是一種阻燃材料，能有效阻隔火的蔓延。妮美龍床單和毛毯得到日本防災協會肯定為阻燃產品。

Limiting Oxygen Index Value, 氧氣界限指數 (LOI值)

Test Subject	LOI Value 氧氣界限指數
BI012 NEORON® Blanket BI012 妮美龍毛毯	36.8

Experiment unit 實驗單位:
UNITIKA Garment Technology Co., Ltd. Research Laboratory Division
日本UNITIKA株式會社的研究實驗室

Testing method 測試方法:
LOI value refers to the minimum concentration of oxygen required to sustain flaming combustion of a material. Material that has a LOI value of 26.0 and above is less combustible and contains higher fire-retardant properties. First, the oxygen concentration is adjusted for all test tubes, then the test cloths which are made of different fibers are ignited. The LOI values are then determined based on the minimum oxygen level required for each test cloth to burn.

氧氣界限指數 (又稱LOI值)，是指引發物質燃燒的最低氧氣濃度，係為評估纖維阻燃程度的指標。當材質之LOI值高於26.0時，即表示其較不容易燃燒，且阻燃性越強。首先，調整裝有測試布的試管氧氣濃度，再分別點燃每個試管內不同纖維的測試布。隨後，根據測試布燃燒所需要的最低氧氣濃度來判斷LOI值。

Approved By Japan Fire Retardant Association, 日本防災協會肯定

