

RESISTEX.COM

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**S I L V E R**



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MADE IN ITALY

**Antimicrobial**

Because silver can eliminate a broad-spectrum of microbes. It works on microorganism cell walls. Thanks to this property, copper helps to reduce bad odor caused by some microbes.

**Antistatic**

Because of its conductivity, the fiber absorbs and disperses electric charges accumulated from the environment or during physical exercise.

**Natural**

100% natural, non-toxic and does not contain chemicals.

**Permanent**

Because of its particular structure, it maintains a constant effectiveness over time, even after many washings.

**Reflective**

Because it protects the body from absorbing static energy, electrosmog and UV rays.

**Heat regulating**

Because silver is an excellent conductor of heat, due to this characteristic it carries away excess heat, maintaining the body ideal temperature.

Resistex® products are certified by

**Silver**

Silver has been used for centuries to prevent and treat a variety of diseases, especially the infective types. It is well documented as silver coins were used in ancient Greece and at Roman times to disinfect stored water and many other liquids. Even today, NASA uses silver to preserve the purity of the Space Shuttle.

**Silver and health**

Silver has very powerful antibacterial properties: the presence of only one part of elementary silver in a 100 million parts solution is enough to achieve an effective antibacterial action. Silver positive free radicals are an active antibacterial agent. In order to obtain a bactericidal effect, they must be available on the bacterial surface; as soon as it gets in contact with it, silver instantly destroys the microorganisms, blocking their respiratory system enzyme (ie energy production) and altering the DNA of the microbial cell walls without causing toxic effects on human cells.

In addition to the well known antibacterial properties, silver has the power to facilitate the healing of “lazy injuries” (difficult to recover from) and regenerate the damaged tissue.

The demonstration of a lower redness of inflamed lesions in contact with silver, certify the also anti-inflammatory properties of this precious element.

**Biological properties**

Some biological properties identified in local applications of silver are:

- antibacterial activity
- antifungal activity
- stimulation of skin regeneration
- anti-itching activity

**High technology against the cold...**

Remedies against the cold have to solve the problems of radiation, evaporation and convection.

**REFLECTING POWER.** The reflectance of infrared (IR) in silver is greater than 95%. This value is higher than any other element, and it means that 95% of the radiant energy which comes into contact with silver is reflected back to its source. Consequently **Resistex® Silver** reduces to a minimum the dispersion of heat, reflecting on the skin its own energy. For this reason, clothing made with winter **Resistex® Silver** are much warmer than regular ones.

**RADIATING POWER.** Silver has one of the lowest rates of radiance among all the elements, which means that it has a very low speed radiation of heat. Silver remains hot for a long time (as opposed to the other elements which retain heat for a very short time). The winter clothing in **Resistex® Silver** are able to absorb and store in its fibers for a very long time the heat that is not reflected on the body. For this reason, clothing made with winter **Resistex® Silver** keep the wearer warm much longer.

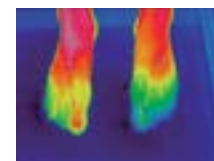
**EVAPORATING POWER.** **Resistex® Silver** promotes the natural transfer of humidity through the hydrophobic materials the same way the body does through evaporation. In a humid environment the conductive properties of **Resistex® Silver** increase the rate of moisture evaporation compared to the other hydrophobic materials. For this reason, clothing made with winter **Resistex® Silver** eliminate the body moisture faster.

**And... the heat**

With the increase of temperature, irradiation loses its importance among the primary causes of heat transfer: the solutions against excessive temperature must solve problems of conduction, convection and evaporation. **Resistex® Silver** addresses the conduction and evaporation (while convection problems are solved by appropriate structuring of the fabric) using the following principles.

**THERMAL CONDUCTIVITY.** Silver, of all the elements on earth, has the highest rate of heat conduction. This means that **Resistex® Silver** works actively to distribute the heat quickly and uniformly throughout the product, and to allow the subsequent transfer. During the hot season, when conduction is the main agent of heat transfer, **Resistex® Silver** promotes the natural action of the body by accelerating the conduction from the heat emitted from our skin (as a traditional fabric simply provides a barrier to heat conduction). So the same way a silver spoon works in a cup of hot tea, **Resistex® Silver** conducts heat to the surrounding skin allowing the human body to cool down.

**EVAPORATING POWER.** As described above, **Resistex® Silver** accelerates the movement of moisture through evaporation. Consequently garments **Resistex® Silver** increase the well-being of the body during the hot season , minimizing the moisture in contact with the skin.



Athlete suffering from hypothermia in the lower limbs , with greater valence on the left one. As we can observe in fig 1, the thermographic surveys on the bare foot (not wearing the Resistex® Silver sock), are the following:

- right foot minimum value: **25,2 °C**
- left foot minimum value: **19,2 °C**

After having verified in a first test the evident thermal failure in the left foot, we had the athlete wearing a pair of socks made with the Resistex® Silver technology and we tested him again with the thermographic test in order to asses the real ability of this innovative fiber.

	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8	Point 9	Point 10
Emiss	0,98	0,98	0,98	0,98	0,98	0,98	0,98	0,98	0,98	0,98
Avg °C	27									
Min °C										
Max °C	28,8	26,3	25,2	26,9	30,1	19,2	21,3	22,6	25,2	28,2

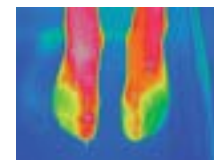


Figure 2 reports the data resulting from the same test after the athlete wore a Resistex Silver sock.

- right foot minimum value: **23,2 °C**
- left foot minimum value: **23,5 °C**

From the average values measured on all points, we can notice a temperature redistribution on both feet. The test results report a normal thermographic picture where the hypothermic areas get replaced by the normothermal ones. As we can observe, the improvement respect the previous data is equal to 4%. The surveyed data clearly highlight the Resistex Silver actual ability as far as thermal reconduction on control and not-dispersion parameters.

	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8	Point 9	Point 10
Emiss	0,98	0,98	0,98	0,98	0,98	0,98	0,98	0,98	0,98	0,98
Avg °C										
Min °C										
Max °C	25,7	26,3	26,4	23,2	26,4	23,9	23,5	24,7	23,5	25,3

