

## RAPPORTO DI PROVA

22-0385EN

Issued on July 6, 2022

CLIENT

SAFITEK's SRL

PRODUCT TO

2 ARTIFICIAL TURF BELLOWS

CATEGORY

ARTIFICIAL TURF MANTILES

### Laboratory Tests

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## **LIST OF TESTS AND ENVIRONMENTAL CONDITIONS**

*Internal Test Method - Determination of Water Retention on an Artificial Turf*

Sample conditioning not required. Test performed at a temperature of 20 °C ± 5 °C.

*Internal Test Method - Determination of Temperature Rise on an Artificial Turf Surface Under Constant Heat Load*

Sample conditioning not required. Test performed at a temperature of 20 °C ± 5 °C.

## **IMPORTANT INFORMATION**

Reproduction of this test report is only permitted in its entirety.

The results of laboratory tests are valid only for the products tested. The laboratory declines all responsibility for all information provided by the customer.

## **OBJECT**

Determination of water retention and determination of temperature increase at a thermal load constant on two different artificial turf surfaces.

## **RETENTION TIMES**

Storage of documents for 4 years and samples for 1 month from the issuance of the test report.

## **SAMPLING**

Sampling is carried out by the customer.

## **PLACE OF EXECUTION OF THE TEST**

The tests are carried out at the Labosport Italia headquarters located in Cernusco Lombardone (LC).

## **APPLICANT**

Reason social

SAFITEX's SRL

Address

Via Ugo Foscolo, 33  
24024 Gandinos (BG)

Nation

Italy

## **ACQUISITION DATA**

Date of receipt of the order

June 13, 2022

First Sample Receipt Date

June 1, 2022

Last Sample Received Date

June 1, 2022

Laboratory test start date

June 20, 2022

Laboratory test end date

June 20, 2022

**SAMPLE IDENTIFICATION (CUSTOMER INFORMATION)**

Two artificial turf surfaces, one with latex primary and one with Eco-next primary

**SAMPLE IDENTIFICATION (LABORATORY INFORMATION)**

**LATEX PRIMARY**



*Top Side Image*



*Bottom Side Image*

**PRIMARY IN ECO-NEXT**



*Top Side Image*



*Bottom Side Image*

## DETERMINATION OF WATER RETENTION ON AN ARTIFICIAL TURF

### GENERAL DESCRIPTION OF THE METHOD

Dry samples were measured and weighed to determine their loss per square metre.

The samples were then soaked in demineralized water for 30 minutes, drained for 30 minutes in an upright position, and weighed again to determine their weight per square meter. This is followed by determination of the amount of absolute water retained and the percentage of water retention of the two samples.

### TEST RESULTS

	LATEX PRIMARY	PRIMARY IN ECO-NEXT
Dry specimen weight (g/m <sup>2</sup> )	2434 (g/m <sup>2</sup> )	1714 (g/m <sup>2</sup> )
Weight of the specimen after immersion in water + drain	2805 (g/m <sup>2</sup> )	2156 (g/m <sup>2</sup> )
Absolute amount of water retained (g/m <sup>2</sup> )	371 (g/m <sup>2</sup> )	442 (g/m <sup>2</sup> )
Water Retention Percentage (%)	15 %	26 %

Notes
None

The test shows that, after a 30-minute immersion in demineralized water, the primary in Eco-next retains 26% of water compared to 15% of a traditional latex primary.

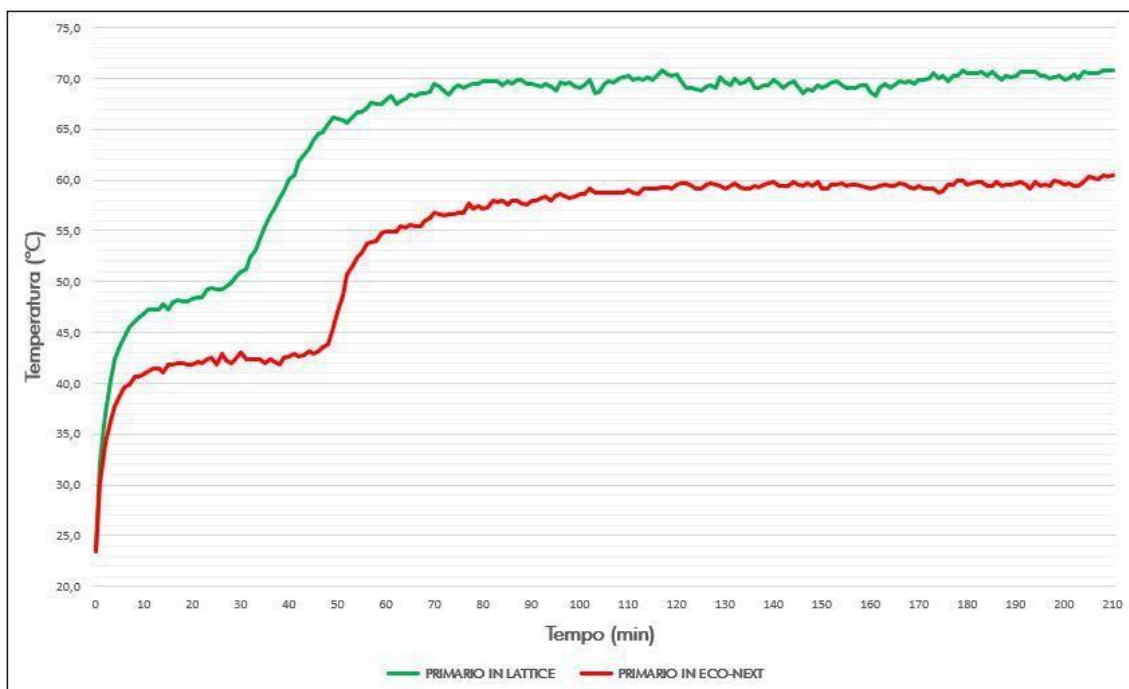


## DETERMINATION OF THE TEMPERATURE INCREASE ON AN ARTIFICIAL TURF SURFACE SUBJECTED TO A CONSTANT THERMAL LOAD

### GENERAL DESCRIPTION OF THE METHOD

The samples were immersed in demineralized water for 30 minutes, left to drain for 30 minutes in an upright position, and were subsequently exposed to the surface heat load. This is followed by measurement of the surface temperature of the primary for a period of 210 minutes.

### TEST RESULTS



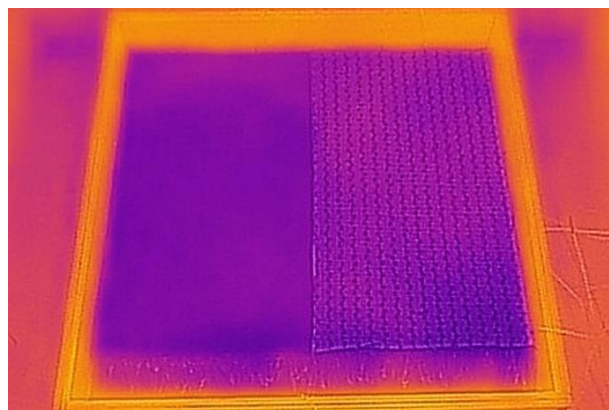
Surface Temperature Graph

The graph shows the behavior of the two products. Subjected to the same constant heat load, in the first phase the water drying time is clearly visible up to about 50 minutes. After this initial evaporation time, the two products show an increase in temperature of between 50 and 65 minutes. They then stabilize and stop growing. The constant temperature difference between the latex product and the Eco-Next product fluctuates between 10 and 11 degrees less in favor of the Eco-next product.

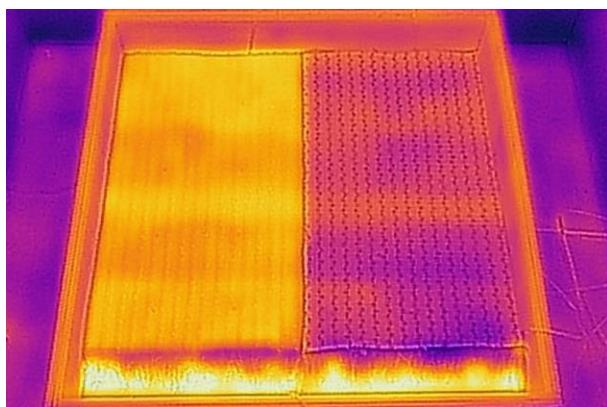
### THERMAL IMAGING IMAGES OF THE SPECIMENS



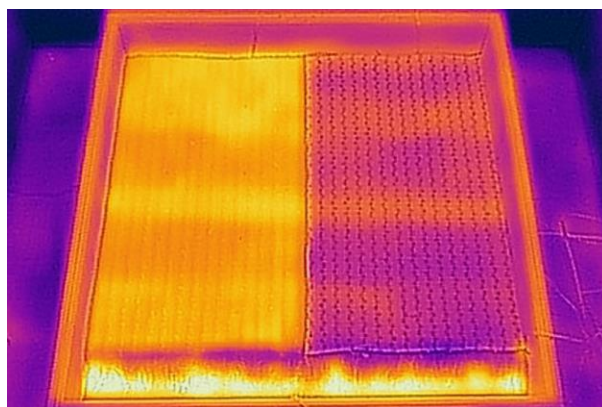
Image before the test



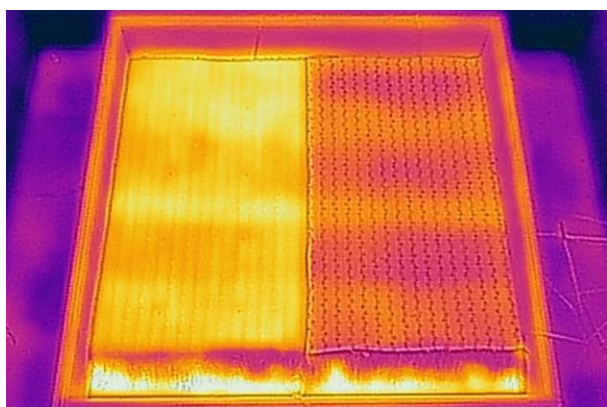
Thermal imaging camera 0 minutes



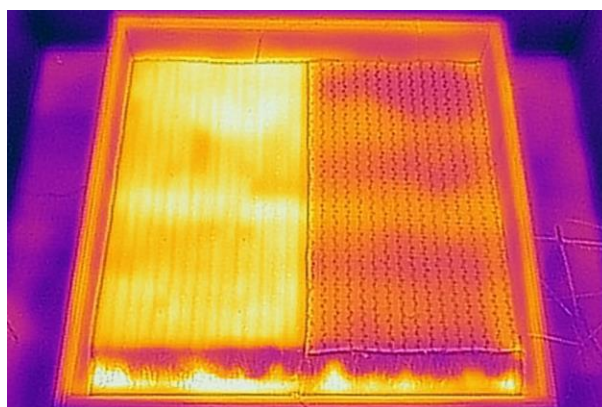
*Thermal imaging camera 1 minutes*



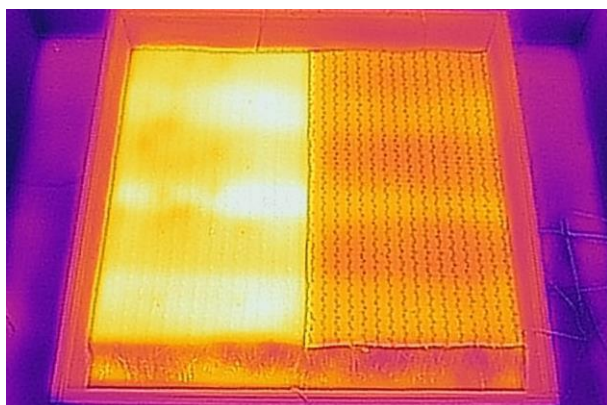
*Thermal imaging camera 5 minutes*



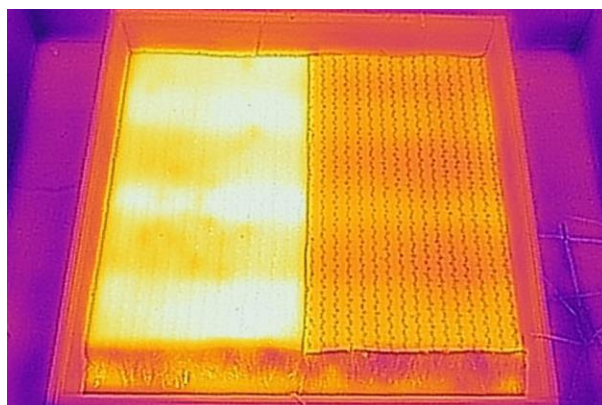
*Thermal imaging camera image 10 minutes*



*Thermal imaging camera image 30 minutes*



*Thermal imaging camera 60 minutes*



*Thermal imaging camera 180 minutes*

## TOOLS USED

### *Internal Test Method - Determination of Water Retention on an Artificial Turf*

Instrument	Constructor	Model	Instrument Sheet
Scales	Radwag	PS6000/C/1	STR043
Tape measure	Stanley	Powerlock Classic	STR229
Timer	RS Component	328-001	STR077

### *Internal Test Method - Determination of Temperature Rise on a Subjected Artificial Turf at a constant heat load*

Instrument	Constructor	Model	Instrument Sheet
Cabinet	Labosport International	NA	STR378
Multi-channel data logger	Graphtec	Midi located GL240	STR379

## ADDITIONS, DEVIATIONS, OR EXCLUSIONS FROM THE METHOD

None.

## COMMENTS ON THE TESTS

Considering that the temperature difference is constant between the two products and is around 10 °C and considering the greater capacity to retain water compared to a traditional latex covering, it can be concluded that the Eco-Next product has the ability to maintain a lower temperature when used within a system, whether with or without a trampoline. It can be deduced that this characteristic is even more pronounced in the presence of infills that contain a percentage of water, due to the ability of the Eco-Next product to absorb moisture and release it slowly. A lower system temperature results in greater surface comfort for athletes as well as less use of water used to decrease surface temperature.

## ADDITIONAL INFORMATION

None.



Director of the Laboratory  
Armen Roberty

----- End of the Test Report -----