

# **ADDMINO-18**

## **HAIR REBORN SYSTEM**

**EFFICACY TESTS WITH  
ADDMINO-18 SYSTEM**



**Purpose of the test:**  
**Determination of the breaking strength and extension of single fibers of the hair treated with Admmino-18 products.**

*Methodology approved by UNI EN ISO 5079:1998*

A replica of the traction tests was carried out on a set of non-treated strands, and on a set of treated strands with Addmino-18 to evaluate the efficacy of the treatments.

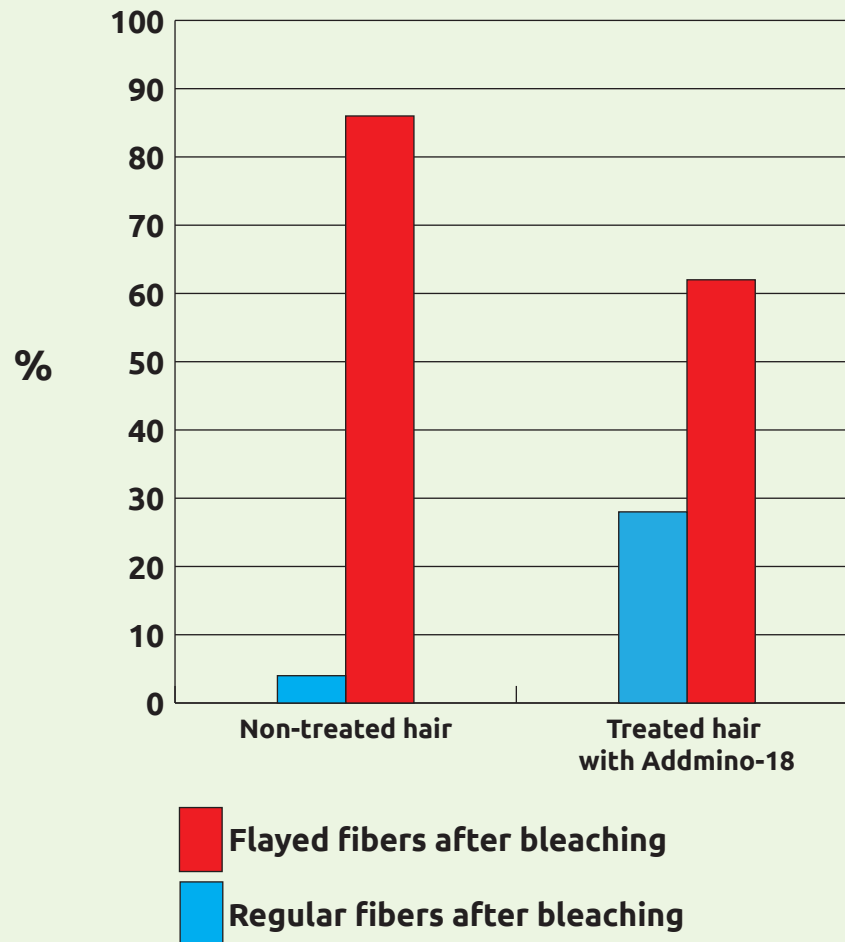
The test confirmed that the mechanical resistance of the hair is improved by the treatment especially after 6 bleaching cycles.

**SEM ANALYSIS  
(SCANNING ELECTRON MICROSCOPY)**

Also with the SEM images, it is proved that the morphology of the fibers is highly different after the bleaching process in non-treated hair and in treated hair with Addmino-18. With Addmino-18 the regular fibers are much more and the flayed fibers are less, confirming the protective efficacy of the treatment.

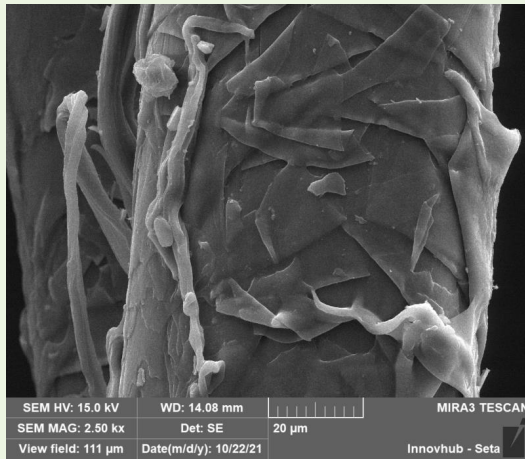
Here are the results of the semi-quantitative classification:

Norm. at.%		Non-treated hair after 6 bleachings	Treated hair with Addmino-18 after 6 bleachings
Regular fibers	%	4%	28%
Flayed fibers	%	86%	62%

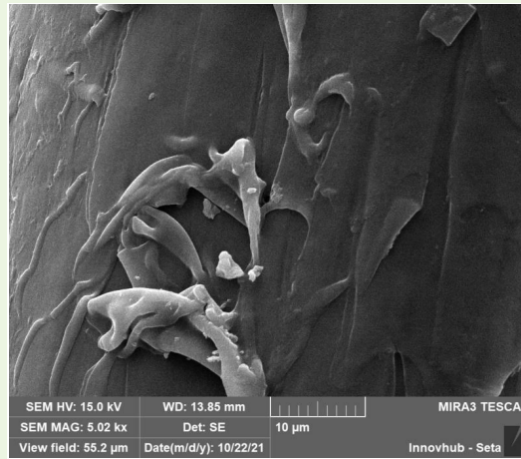


# Flayed fibers

Partially abraded surface, broken, deformed or removed scales, sometimes fused together with or without partial lifting of the cuticle.

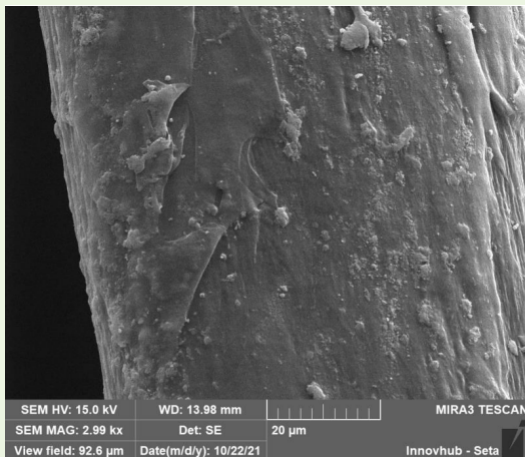


PICTURE 15

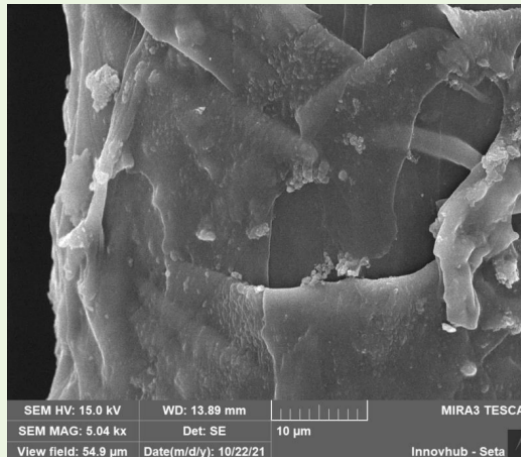


PICTURE 16

**WITHOUT  
ADDMINO-18**



PICTURE 29



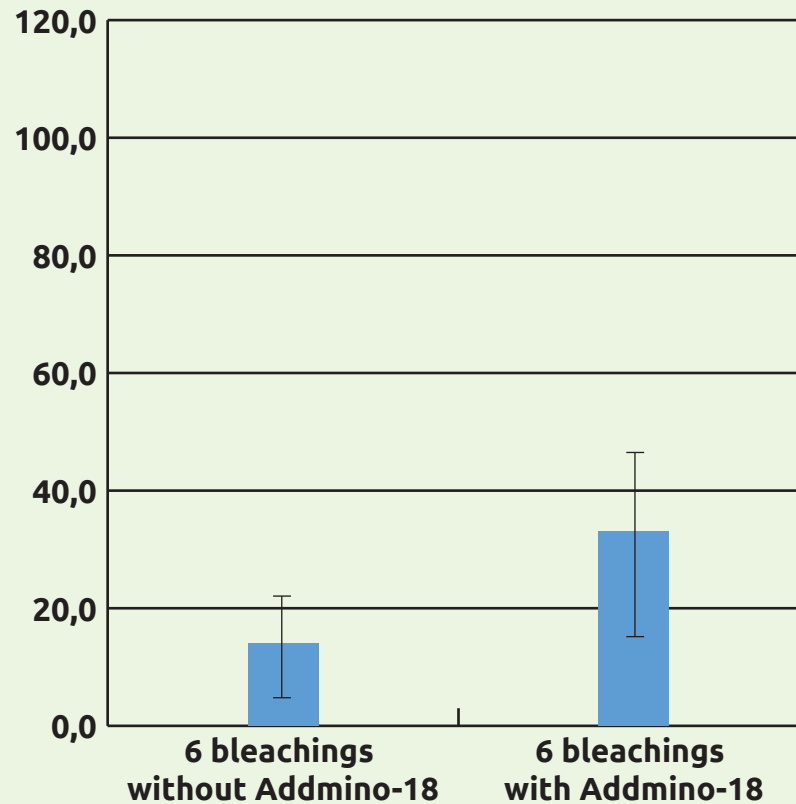
PICTURE 30

**WITH  
ADDMINO-18**

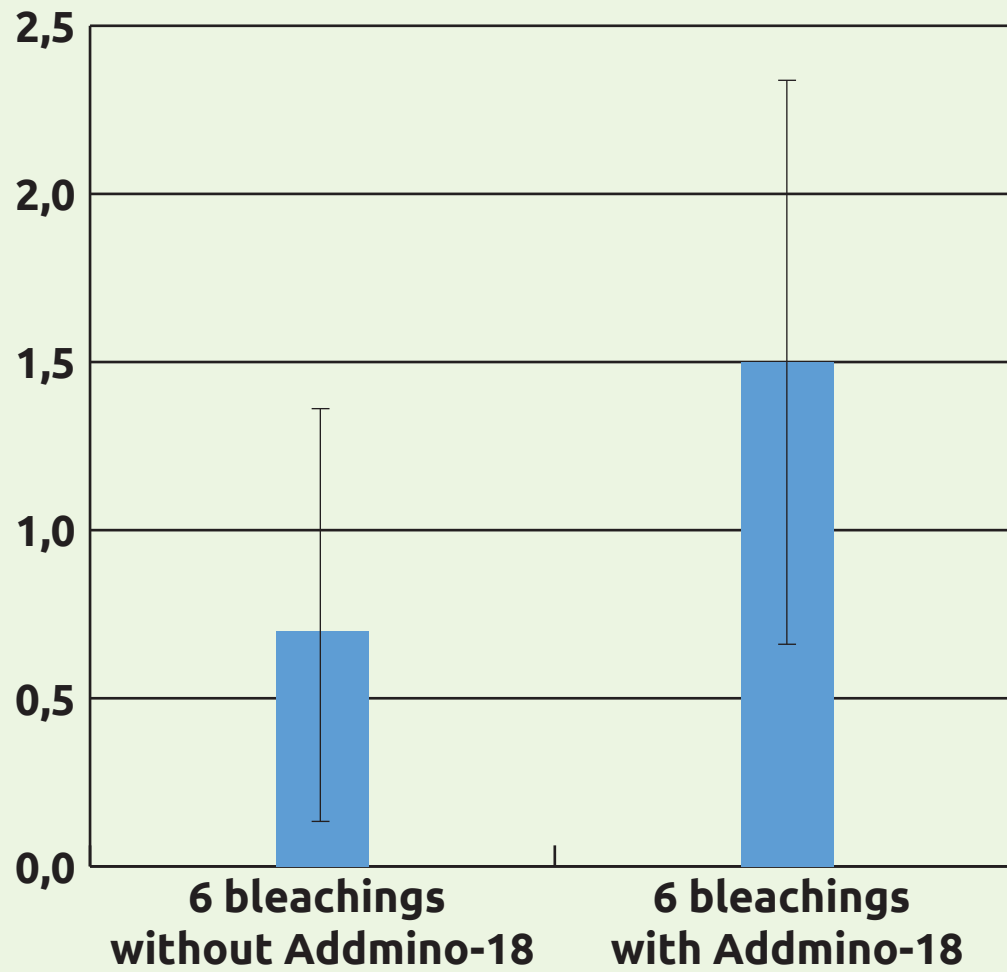
# INFRARED ANALYSIS OF HAIR SUBJECTED TO BLEACHING CYCLES

Also an infrared analysis has been used to determine the protection of disulphide bonds by the product under examination. The final results on the hair strands are the following:

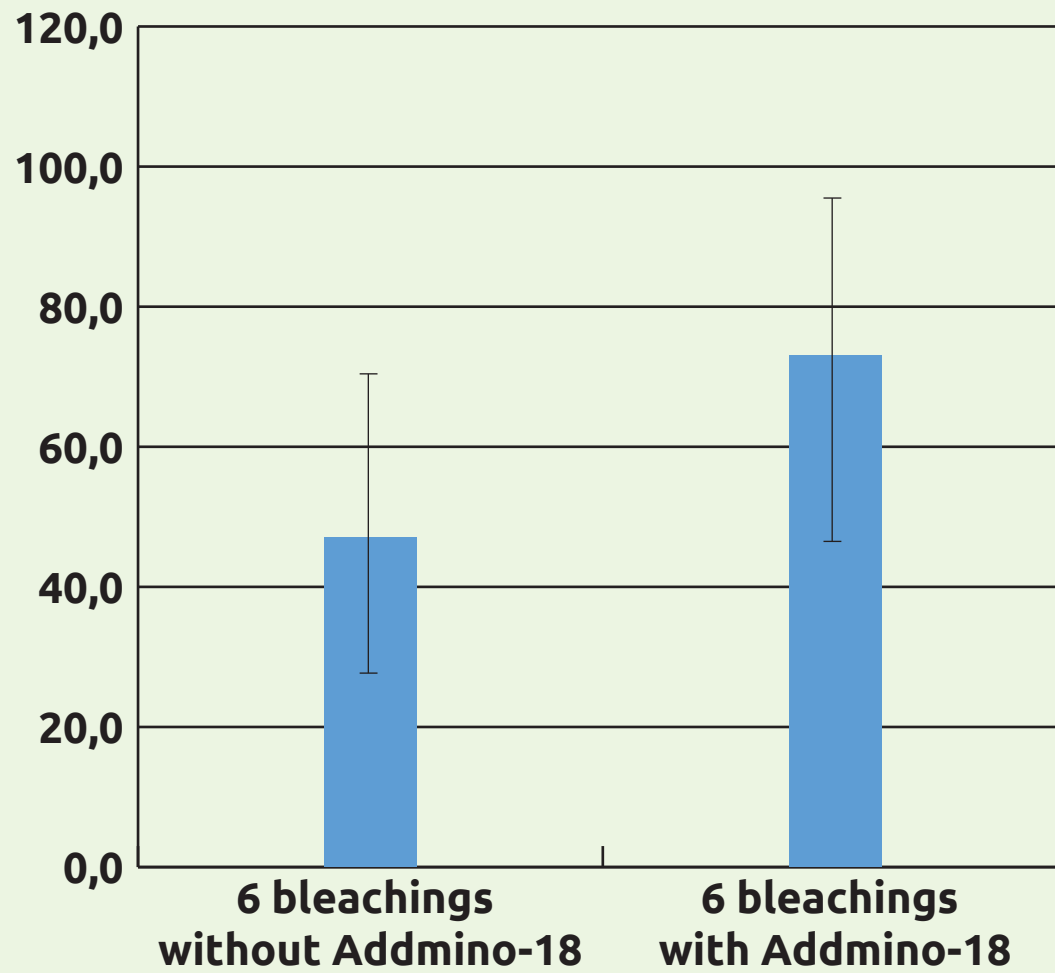
**BREAKING  
STRENGTH  
(cN)**



## TENACITY (cN/tex)



## EXTENSION %





## **DISCUSSION OF THE RESULTS**

The differences between bleached strands with or without Addmino-18 underline that the treatment empowers mechanical strength and surface appearance due to the introduction of polydentate ions which stabilize the keratin filaments no longer bound by disulphide bridges.

**<https://www.addmino18.com/>**