

Abstract

Unlike formaldehyde based hair systems, **AC Kerazyme®** is an all-natural ingredient that is capable of modifying the shape of the hair while protecting it from styling damage. This unique ingredient consists of a blend of hydrolyzed keratin and *Trametes versicolor* extract. *Trametes versicolor* is a type of mushroom that contains an oxidative enzyme called laccase. This distinct heat activated enzyme cross-links free carboxylic acid groups in the hydrolyzed keratin with the amine groups along the cuticle to create a stable network that holds the hair's texture in a given shape. Styling tools such as hot irons or blow driers can be used to activate the botanical enzyme while simultaneously straightening the hair. This all natural technology provides versatility when it comes to styling and shape retention. Our research confirms that the straightening benefits associated with **AC Kerazyme®** last until the hair is washed.

Materials and Methods

Half-head studies were conducted to determine the ability of **AC Kerazyme®** to easily promote straight styles. Panelists with naturally curly hair washed it and then were instructed to apply a 2% solution of **AC Kerazyme®** in water to one half of their head and let it air dry, while the other half of the head remained untreated. After the hair was dry, both sides were then straightened using a flat iron at 380 - 450°F (193 - 232°C).

Results

Before



**Natural Hair Texture - No
Treatment**

After



**Flat Iron
Only**

**Flat Iron with 2%
AC Kerazyme®**

Before



**Natural Hair Texture
No Treatment**

After



**Flat Iron with 2%
AC Kerazyme[®]**

**Flat Iron
Only**

(Participant's Face Blurred and Eyes Covered to Ensure Privacy)

Discussion

Half head studies indicated that **AC Kerazyme[®]** promotes ease of styling as only 1 to 2 passes with the flat iron are necessary to effectively straighten curly hair. In the above figures, the sides treated with 2% **AC Kerazyme[®]** are clearly smoother, straighter and healthier looking than the sides which did not receive any type of treatment prior to using the flat iron. This demonstrates that **AC Kerazyme[®]** is ideal for easing the overall straightening process to achieve healthy and glamorous-looking hair.