

Salon Half-Head Hair Study



fractionated coconut lipids
 topical + tropical
 functional active + luxurious
 sensorial experience
 antioxidant, film-forming,
 moisturizing, soothing

ABSTRACT

The condition of the cuticle (the outer most layer of the hair) significantly affects both the manageability and sleekness of our hair. Overtime, hair can become damaged, which can result in the cuticle lifting as a consequence of both environmental and styling influences and processes. The result: lifeless, dull hair that is difficult to manage. Improving the sleekness of hair has been shown to instantly create a healthier more youthful appearance. Increasing combability not only eases manageability, but also helps to minimize physical damage that perpetuates the loss of body and difficulty in styling.

AcquaSeal® Coconut is a product designed to provide intense moisturization benefits, coat the hair to protect against environmental stressors and seal the cuticle to enhance shine and the overall finished look of hair styles. However, this unique ingredient also enhances dry and wet combability, manageability and the smoothness, particularly when used on ethnic hair. The purpose of this study was to confirm whether or not AcquaSeal® Coconut is capable of providing benefits when included in a shampoo and conditioner on ethnic hair types.

A half head study was conducted to determine the comparison of a control shampoo vs. 2.0% AcquaSeal® Coconut in a Base Shampoo. Additionally, a comparison between the control conditioner and 2.0% AcquaSeal® Coconut in a Base Conditioner was reported. Each volunteer's hair was photographed prior to the treatment and again after the shampoo and conditioner had been applied and the hair was styled. The images of the half head study were used in conjunction with a sensory assessment subjectively rating shine, volume, dry and wet combability, thickness, smoothness, hydration, softness and manageability. This assessment was conducted both before and after treatment. Based on the results obtained, AcquaSeal® Coconut is capable of enhancing the shine, smoothness, moisture levels, and overall health and manageability of the hair, making it an ideal ingredient for use in products intended for unruly or ethnic hair types.

Code Number: 20742

INCI Name: Cocos Nucifera (Coconut) Fruit Extract

INCI Status: Conforms

REACH Status: Complies

CAS Number: 8001-31-8

EINCS Number: 232-282-8

TRF#: 792

Lot Number(s):

#NC141117-C, #NC141117-D

Suggested Use Levels: 0.5 - 5.0%

Use Level for Assay: 2.0%

Sponsor:

Active Concepts, LLC
 107 Technology Drive
 Lincolnton, North Carolina 28092

Study Director: Erica Segura

Principle Investigator: Meghan Darley

Suggested Applications: Improves Barrier Function, Moisturizes, Film-Forming, Enhances Product Feel, Sensorial, Antioxidant, Reduces Transepidermal Water Loss

Benefits of AcquaSeal® Coconut:

- Enhances Aesthetics of Final Formulas
- Intense Moisturizing Benefits
- Perceivable Sensorial Attributes
- Improved Barrier Function
- Antioxidant Protection

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MATERIALS AND METHODS

The study was conducted using five participants with ethnic hair. Each subject had their baseline photo taken prior to having their hair washed. The participant was also asked to complete a survey rating their hair prior to treatment on a scale of 1 to 10, with 1 being the lowest and 10 being the highest, using the following parameters shine, volume, dry and wet combability, thickness, smoothness, hydration, softness and manageability.

Half of the head was treated with the control shampoo and conditioner while the other half of the head was treated with 2.0% AcquaSeal® Coconut in the Base Shampoo/ Base Conditioner. After the application and rinse of the test and positive control products, each participant's hair was blown dry using a round brush on both sides of the head. Once the hair was completely dry, the participant was asked to again assess the volume, shine, dry combability, thickness, smoothness, hydration, softness and manageability of both halves of her hair. Assessments were made using a rubric from 1 to 10, with 1 being the lowest and 10 being the highest.

RESULTS

	Baseline Assessment of Untreated Hair	Assessment of Half Head Shampooed with Untreated Control	Assessment of Half Head Shampooed with 2.0% AcquaSeal® Coconut	Assessment of Half Head Conditioned with Untreated Control	Assessment of Half Head Conditioned with 2.0% AcquaSeal® Coconut
Shine	3	4	8	4	10
Volume	8	4	4	3	3
Dry Combability	2	2	7	4	9
Wet Combability	1	2	7	3	9
Thickness	8	7	5	7	4
Smoothness	3	3	9	3	10
Hydration	3	4	10	6	10
Softness	1	2	7	5	10
Managability	2	2	7	4	8

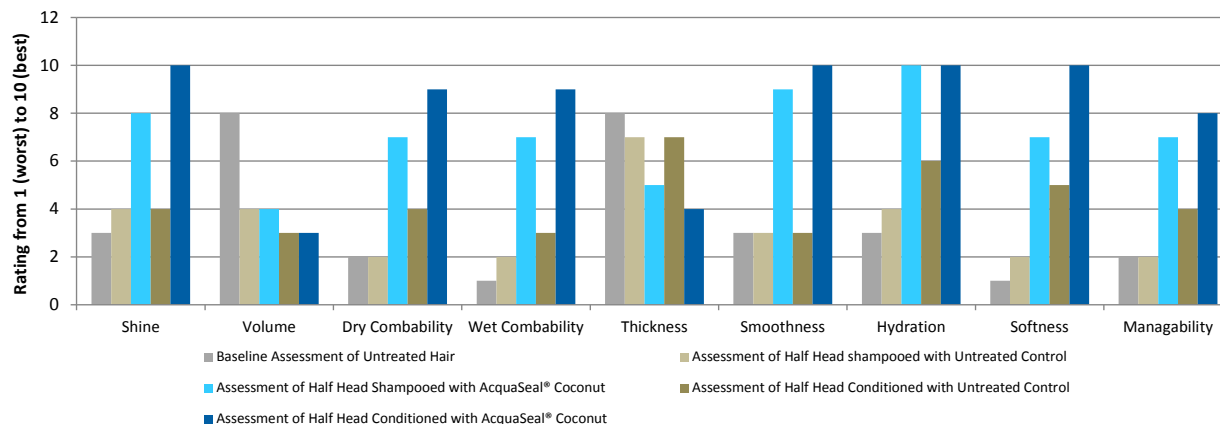
Chart 1. Average Results of Participant's Assessment

	Percent Difference - Comparison of Control Shampoo vs. 2.0% AcquaSeal® Coconut + Shampoo	Percent Difference - Comparison of Control Conditioner vs. 2.0% AcquaSeal® Coconut + Conditioner	Percent Difference - Baseline Assessment vs. Half-Head Treated Assessment
Shine	50%	60%	41%
Volume	0%	0%	47%
Dry Combability	71%	56%	75%
Wet Combability	71%	67%	87%
Thickness	-40%	-75%	14%
Smoothness	67%	70%	47%
Hydration	60%	40%	30%
Softness	71%	50%	30%
Managability	71%	50%	63%
Mean	47%	35%	48%

Chart 2. Average Change Experienced for Participant's Sensory Assessment

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Assessment of Hair Characteristics



Graph 1. Rating of hair characteristics following sensory assessment



Figure 1. Full head Baseline, Untreated Hair



Figure 2. Half Head Treated



Figure 1. Full head Baseline, Untreated Hair



Figure 2. Half Head Treated

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Figure 5. Full head Baseline, Untreated Hair



Figure 6. Full head Baseline, Untreated Hair



Figure 7. Full head Baseline, Untreated Hair

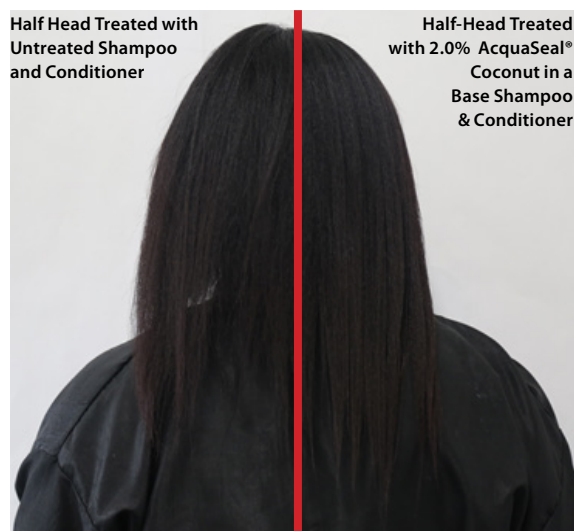


Figure 8. Half Head Treated



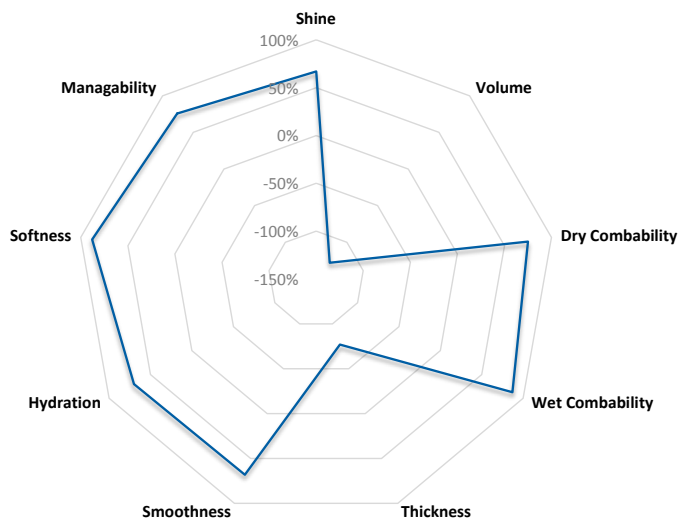
Figure 9. Full head Baseline, Untreated Hair



Figure 10. Half Head Treated

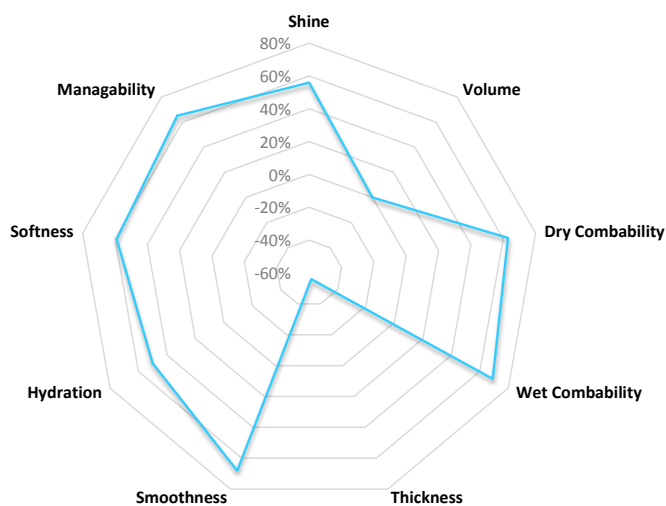
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Changes in Hair Characteristics from Baseline to Post Style



Graph 2. Hair Assessment results for sensory characteristics

Treated Half vs. Control Half After Application & Style



Graph 3. Hair Assessment results for sensory characteristics observed between the positive control and test products

DISCUSSION

The results of the assessment indicate that when incorporated into a shampoo, 2.0% AcquaSeal® Coconut is capable of improving hair characteristic 53.0% more overall than a control shampoo and 47.0% more overall than the control conditioner. When used in the shampoo and conditioner at 2.0%, AcquaSeal® Coconut improved shine, dry and wet combability, smoothness, hydration, softness and manageability by 56%, 63%, 69%, 68%, 50%, 59%, and 65% respectively, better than the control shampoo and conditioner, while also helping tame excessive volume and thickness. These results can be further supported by figures 1 through 10, where clearly the half of the subject's head treated with 2.0% AcquaSeal® Coconut appears shiny and smooth. Additionally, the subjects reported a significant increase in softness, manageability and ease in combing both wet and dry hair.

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When comparing hair characteristics of the baseline assessments to the post style assessments, the benefits of including 2.0% AcquaSeal® Coconut in a shampoo and conditioner are even more apparent. In relation to the baseline readings, the test-half of the head improved the intended subjective parameters, improving shine, dry and wet combability, smoothness, hydration, softness and manageability by 67%, 75%, 87%, 68%, 70%, 88%, and 76%, respectively, while also diminishing the appearance of unruly hair with excessive volume. It is clear from the images in this study that AcquaSeal® Coconut helps create a smooth, sleek hair style. Additionally, in all images, the hair is noticeably shinier and has a more hydrated appearance.

The professional stylist who performed the actual tests by applying the product, styling the hair and documenting the images said AcquaSeal® Coconut nourishes and protects ethnic, color-treated and extremely dry hair. The product helps seal the cuticle to leave a lasting smoothness, while also acting to restore the hair by repairing damage caused by chemical, heat or environmental stress. The stylist also reported that not only was there a visible difference in the hair, but the hair was perceivable softer to the touch. AcquaSeal® Coconut will not weigh the hair down or make it feel oily when used in a shampoo or conditioner. After evaluating the images and the subjective, volunteer surveys, we can conclude that AcquaSeal® Coconut is ideal for excessively dry and/ or ethnic hair types.



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