

AcquaSeal® Coconut Transepidermal Water Loss Study

Code: 20742

INCI Name: Cocos Nucifera (Coconut) Fruit Extract

Suggested Use Levels: 0.5-5.0%

Abstract

An in-vivo study was conducted over a period of three weeks to evaluate the ability of **AcquaSeal® Coconut** to enhance barrier function through reduction in Transepidermal Water Loss (TEWL). Results indicate that this material is capable of efficiently reducing TEWL which allows moisture retention.

Materials and Methods

10 volunteers M/F between the ages of 23 and 45 and who were known to be free of any skin pathologies participated in this study. A Dermalab Combo was used to measure TEWL on the subject's volar forearms. The instrument consists of a probe that is based upon the vapor gradient with an open chamber. This open chamber design maintains the free natural evaporation from the skin without interfering with the environment over the measurement area. This ensures unbiased and accurate readings. Operation of the water loss module is fully menu drive, allowing for pre-setting and standard deviation or measurement time. Baseline TEWL readings were taken on day one of the study.

Following initial measurements, all subjects were asked to apply 5 milligrams of each test material on their volar forearms. Measurements were taken immediately after application of the test materials and then weekly for three weeks. The test material consisted of 2% **AcquaSeal® Coconut** in a base lotion.

Results

For added perspective, measurements of an untreated test site and a site treated with a base lotion (Cetaphil Moisturizing for All Skin Types) were recorded.

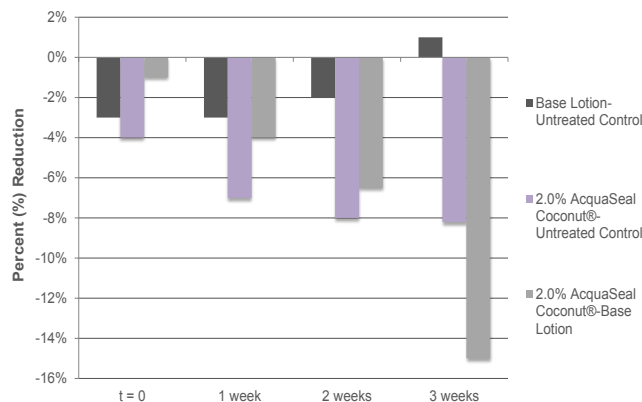


Figure 1. Percent reduction in skin's water loss after application of **AcquaSeal® Coconut**.

Discussion

As evidenced in a three week efficacy study of **AcquaSeal® Coconut** on the skin, it can be used to effectively reduce Transepidermal Water Loss with better results overtime. When compared to the base cream **AcquaSeal® Coconut** was shown to decrease Transepidermal Water Loss by 17% and by 93% when compared to the untreated control after three weeks. Results indicate that **AcquaSeal® Coconut** is capable of reducing TEWL, which allows for moisture retention.