

## Moisture retention by Conductivity/ - /Sub/ time pt

Skin surface impedance is used to as a determinant of electro- conductivity. This test provides a relative measure of retained water content of the skin as a measure of the skin's dielectric value.

### Examples of Claims Supported

“Moisturiser” - “Moisturising formula” “effective Moisturiser” - “increased the moisture level of the skin by...% after ... days of use.” Even works for up to ...days after discontinuing use”.

### Experimental Design

Skin hydration by instrumental methodology, using a Corneometer versus the baseline (untreated) skin on the same test panelists at 1 hrs (1 to 8 ) or days (1 to 10)

#### 4. Standards for Inclusion in a Study:

Ages of 18 and 70 not taking medication or under the care of a physician for a period of one month prior- have completed a preliminary medical history - read, understood and signed an informed consent document - free of any dermatological or systemic disorder that would interfere with the results - Individuals with self-described dry skin.

#### Standards for Exclusion from a Study:

1. Under doctors care - currently taking medication which would mask or interfere with the results - history of sensitivity to cosmetics in general and moisturisers in particular - any form of skin cancer, melanoma, lupus, psoriasis, rosacea, porphyria cutanea tarda, connective tissue disease, or any disease that would interfere with the test results- chronic skin allergies -pregnant or nursing an infant - excessive hair on the test sites.

### Method

Base line readings are determined after test subject skin has been equilibrated with a controlled humidity and temperature environment.

Test site may be nominated and are delineated for corresponding areas..

In order to pre-condition the test sites and keep all topical treatments constant for all test subjects, panelists are required to abstain from using deodorant soaps, moisturising soaps or cosmetic moisturisers on the test area for a period of one weeks prior to study commencement and during the course of the study.

#### For Single Day Studies

On the day of the study, test material is delivered to the test sites through plastic volumetric syringes. The material was then evenly applied back of the hands using a glass rod to rectangular area measuring 2.5 x 10cm on the liberally A site of equal size is left untreated to serve as a negative control. Panelists are blinded as to the nature of the material being applied. Biophysical measurements via Corneometer\* are taken at t = 0 (pre application). Panelists were required to remain in the lab for the entire initial test period.

#### For Multi-day Studies

Product is applied to test area according to client instructions.

At further nominated timepoints, test subjects are brought back to the laboratory for further measurements. In all other aspects, the methodology is the same.

Regression af discontinuance of use can also be measured.

\*Capacitance - Corneometer - fixed units of capacitance measurements representing resistance across a surface - concept - lower resistance equals higher moisturisation ( the inverse of conductivity).

### References

*W. Courage, Hardware and Measuring Principle: Corneometer*, Biogengineering of the Skin: Water and the Stratum Corneum", edited by: Peter Elsner, Enzo Berardesca, Howard I. Maibach, 1994.

*V. Zuang, C. Rona, F. Distant, E. Berardesca, The Use of a Capacitance Device to Evaluate the Hydration of Human Skin*, J.Appl.Cosmetol. 15 July-Sept.1997

Dermatest SOP DESOP - 033 Procedure for Determining Skin Conductivity using the Corneometer.