

Test Protocol Outline

Transepidermal Water Loss (TEWL) * - /Sub/ time pt

Transepidermal water loss using a Tewameter Model TM 210. This instrument measures the percentage relative humidity at the skin surface, using a sensing electrode encased in a chimney. Reduction in TEWL is an indicator of high barrier film integrity.

Experimental Design

Subjects: Panels of adult subjects, male and female, randomly selected or as specified by the client.

- Informed of the nature of the test including possible adverse reactions.
- Written informed consent documents signed by all participants prior to induction.
- Only subjects that are considered dependable and able to read, understand and follow directions will be requested to participate.
- Prior to initiation of a test, each subject will complete a medical history form. The subjects will not exhibit any physical or dermatological condition which would preclude application of the test material(s).
- Test subjects will refrain from applying moisturisers or other topical treatment or related products to the test area for 3 days prior to participation in the study.

Method

There will be a pre-nominated wash out period, using Simple Soap prior to commencement of study.

At commencement of the evaluation of each subject, the test area will be washed with Simple soap, followed by pat drying.

Dry skin zero state can be artificially induced by extra washings just prior to commencement of the study.

After preparation, a period of 30 minutes will be allowed for equilibration, with the subject remaining in the test area.

For short term evaluation, subjects remain at the test facility for the duration of the test.

Temperature of the test area will be held between 18 and 22oC.

Humidity will be held at 50% R.H. +/- 5%.

All doors and windows will be closed during measurement.

The test product is weighed, so as to achieve an even coverage of a the required number of milligrams/cm². Generally this is in the region of 2mg/sq cm, or as specified by the client.

A series of measurements will be taken for each target area at each time point.

Mean and statistical significance will be reported.

References

Tewameter TM 210 Information and Operating Instructions (manual).

Transepidermal Water Loss, Bioengineering of the Skin: Methods and Instrumentation, CRC Press 1995