

# Wrinkle Reduction Analysis - Skin Surface Profilometry \* -

Evaluation of effect of product on skin surface profile. Appropriate for wrinkle treatment and skin moisturisation studies as well as to cellulite treatment products.

## Experimental Design

**Panel Demographics** - Females between the ages of 30 and 55 years.

- are informed of nature of test and possible adverse reactions, informed consent docs.(only incl. those who are dependable, able to read, understand and follow directions).

Prior to initiation, medical history form completed by subject, exclude those who have a history of physical or dermatological condition which would preclude application of the test materials.

**Wash Out**- typically 7 to 14 days

**Duration** - Readings at intervals of 30 days. Review will occur at each time point.

**Study Design** - Linear pretreatment and comparative study.

**Product Application** - typically one pluse comparator or untreated matching area, randomly assigned.

### Other Options

- a. Long range effects upon cessation of treatment.
- b. Incorporate a comparison product.

## Method

The subject is instructed to apply a quantity of product to the area Typically, twice daily in morning and in the evening. Test subjects use product for several months and are tested at intervals of 15 to 30 days.

For facial products, the typical test site for the sampling is the periorbital canthus (crow's foot area).

For cellulite studies, the typical test site is located on the posterior outer aspect of the upper thigh, halfway between the hipbone and the knee.

At each visit, a single silicone replica is made of an area on one side of the target area and a record is kept of this target. The samples are stored in controlled conditions for comparative measurement.

Comparative analysis of skin profilometry is conducted, using surface roughness analysis.

Concurrent use of other moisturiser or skin care products must not occur in the skin area under study.

The height of the replicated wrinkles are measured using Miyomoto SurfTest profilometer. Ra, Rz or Rmax are recorded at each time of measuring operation. The area scanned in from each sample is clearly mapped so as to determine the same area in respective 45 day and 90 day samples.

### Typical Parameters

|  |   |
|--|---|
| Test Sites:                            | Crows Feet Area   |
| No. of Test Sites:<br>to be evaluated) | Silicone Replicas/panelist/time point (2 at each time point)                              |
| No. of Applications:                   | 2 x per day. SPF product recommended to be used after product application during the day. |
| Amount of Application:                 | A small amount (about .2 ml) per application  |
| Use:                                   | Smooth over wrinkle and fine line area.   |
| Washout Period:                        | 1 week  |
| No. of Evaluations:                    | 0, 45 & 90 Days   |
| Biophysical Measurements:              | Wrinkle and Fine Line Depth Measurements  |

## References

Dermatest SOP DESOP 039 Measurement of Skin Roughness utilisnig the Suftest Surface Profilometer.

Stylus Method for Skin Surface Contour Measurements Gassmueller, J et al. Handbook of Non-invasive Methods and the Skin 1995.