

## Elasticity by Cutometer \* - /Sub/ time pt

Measures skin elasticity by drawing a portion of the skin into a calibrated vacuum orifice whereupon the resistance and regression is measured. Appropriate for support of claims relating specifically to improvement in skin elasticity.

### Experimental Design

#### Subjects -

Usually female, selected from the target age group nominated by the client.

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.

**Test Materials** - sponsor to submit sufficient amounts of test material.

Liquids - (incl lotions) - 250mL (8oz)

Creams - semi-solids - 250g (1/2lb)

### Method

Cutometer used to instrumentally measure the viscoelasticity of the skin under experimental conditions. The method is non-invasive.

The measuring principle is based on suction and elongation. The device generates negative pressure, which can be varied. The skin area to be measured is drawn into the aperture of the probe due to the negative pressure.

The penetration depth of the skin into the aperture is determined without contact by an optical measuring system. This system consists of a light emitter and a light acceptor. Two opposing glass prisms transmit the light from emitter to acceptor. The light ratio changes proportionally to the penetration depth of the skin.

Multiple readings are taken over the target area, which is normally the forearm or may be the target area nominated for the intended use of the product under test.

Additional readings to an agreed protocol are taken over additional time points.

### References

Dermatest DESOP -032

Courage and Khazaka Cutometer Manual.

Bettinger, J. et al Skin Research and Technology 1999, 5, 22-27