



## STEPS



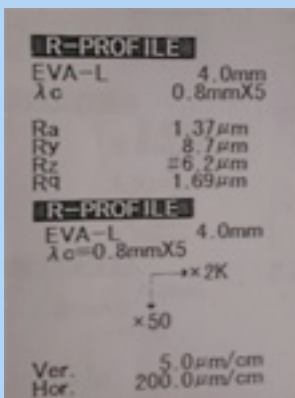
1. SILICONE IMPRESSION GATHERING



2. MATCHED IMPRESSIONS



3. PROFILOMETRY MEASUREMENT



4. RECORDING AND REPORTING

## Profilometry (Wrinkles)

### Measurement of Skin Profile - Roughness and Wrinkles

#### Supportable Claims

- Wrinkle Reduction
- Skin Smoothness
- Cellulite

#### Skin Mapping

The area to be scanned from each sample is clearly mapped so as to determine the exact same area for relevant future time points

#### Silicone Impressions

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. An additional benefit is that the impressions can be stored for long periods as a semi-permanent record if required.

#### Profiling

Comparative analysis of skin profilometry is conducted, using surface roughness analysis. Typically, Ra (skin roughness) and Ry (wrinkle Depth) are recorded at each time of measuring operation.

#### Test Target Sites

The common target is the crows foot area around the eye. Other sites include scarred areas and cellulite lines.

#### Reporting

Data for at least 10 test subjects is accumulated. Percentage improvement is expressed as Ry - (wrinkle depth) and/or Ra - (average roughness).  
 $\frac{\text{Initial} - \text{Final}}{\text{Initial}} \times 100 = \% \text{ improvement}$

#### For Wrinkle Test

Test subjects with medium wrinkling in the eye area (crows foot).

#### For Skin Roughness

Can be as an adjunct to the wrinkle test. Adjoining non-wrinkled area is measured.

#### Alternative Methods

Recent developments in this measurement area include several alternative systems which are based on 3D imaging.

#### References

1. Stylus Method for Skin Surface Contour Measurements Gassmueller, J et al. Handbook of Non-invasive Methods and the Skin 1995
2. Profilometry of Skin - a useful tool for the substantiation of cosmetic efficacy. Cook Thomas, H, Journal of the Society of Cosmetic Chemists Vol 31 No7 1980.

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