

What does it measure?

The Skin-Visiometer® SV 700 is an established tool to evaluate the topography of the skin surface by light transmission of a very thin, special blue dyed silicone replica.

The Measuring Principle

The replica is placed between a parallel light source and a b/w CMOS-camera. The light is absorbed according to the thickness of the silicone material. The replica reproduces the heights and depths of the skin as a negative, i.e. wrinkles are higher in the replica as the silicone is thicker in this place. The amount of absorbed light is calculated by Lambert and Beer's Law: $\Phi_{ex} = \Phi_{in} \cdot e^{-kd}$
The outgoing light is proportional to the incoming light, the thickness of the material and the material constant k.

Software & Parameters

The image is digitalized by the instrument and shows the heights and depths of the replica on a grey scale (256 grey values). Thus the depth of each pixel can be calculated in μm by the special software.

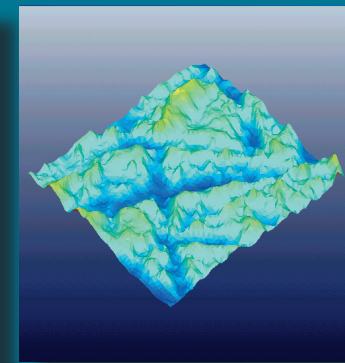
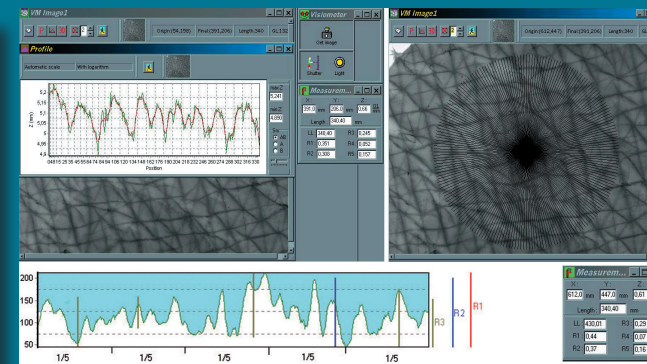
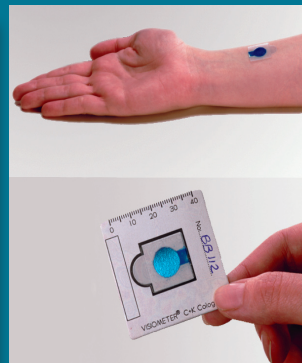
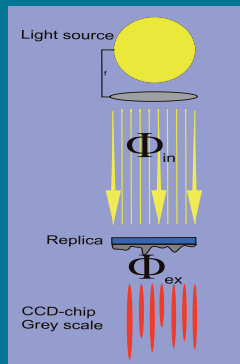
- Many functions and calculations are very quickly available in the software.
- Lines can be drawn on the images and the profile and the results are shown immediately.
- Calculation of standard roughness parameters R_t , R_m , R_z , R_p and R_a for up to 180 lines (drawn vertically or horizontally on the image).
- Calculation of special parameters: volume (mm^3), unfolded surface (%), anisotropy and cell density.
- Display of coloured 3D image, relief, false colour.
- Determination of desquamation and sebum production with foils Corneofix® F20 & Sebufix® F16.

Fields of Application

Indispensable tool for the R&D laboratories or the test institutes for efficacy testing of anti-wrinkle products.

Advantages

- The two-part silicone is very viscous and reproduces even smallest skin depths.
- Very high resolution of the image.
- Replicas can be made in different places, be stored over a long term and then be evaluated together by a macro function.
- All results can be stored, printed out together with the images and exported to spreadsheets (Microsoft Excel®).
- Easy and quick calibration of the system.
- The skin camera Visioscan® VC 98 USB with its analysing software SELS (Surface Evaluation of the Living Skin) can be added to the system.



Technical Data

Power supply: external 100-250 VAC, 47-63 Hz, 1 A max. Dimensions: 26 x 24 x 7 cm Weight: 2.7 kg
 Measurement area : 7.5 x 5 mm ± 21 μm (360 x 274 pixels) Resolution: 2560x1920 pixel (5 Mpx)
 Light source: globe with power LEDs Interface: USB 2.0, connection for Visioscan® VC 98 USB
 Pump: Power supply: 100-250 VAC, 47-63 Hz, 2.5 A max. Dimensions: 26.5 x 12 x 8 cm Weight: 2.5 kg
 Computer: Windows® Vista, 7, or 8, performance must meet system requirements, USB 2.0
 Technical changes may be made without prior notice.

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