

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 **relief of the skin as a negative**, i.e. wrinkles are higher in the replica, absorbing more light, 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**). As the three-dimensional coordinates are known, the **depth of each pixel** can be calculated in μm by the special software.

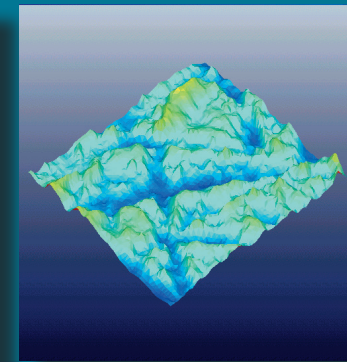
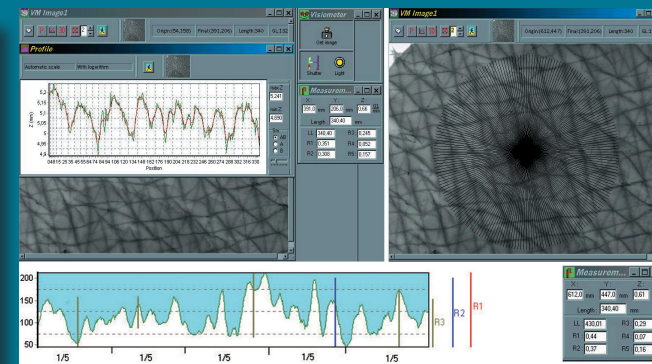
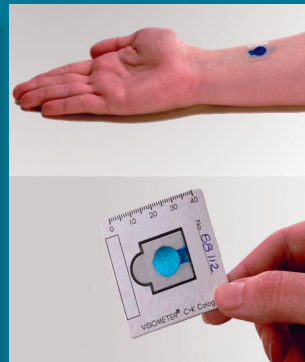
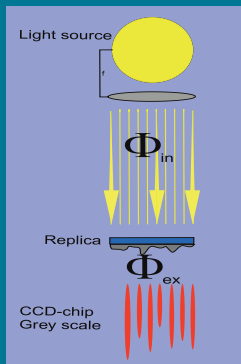
- With this method various **skin parameters** can be calculated within one second.
- **Lines can be drawn** on the images and the profile and the results are shown immediately.
- Calculation of **standard roughness parameters** Rt, Rm, Rz, Rp and Ra for up to 180 lines (drawn vertically, horizontally or radially 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

Exact, easy-to-handle and economic system for the R&D laboratories or the test institutes for **efficacy testing of anti-aging products**.

Advantages

- The two-component silicone is **very fluid** reproducing even smallest skin depths and hardens very quickly.
- 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 Excel®**.
- Easy and quick **calibration** of the system.
- The skin camera **Visioscan® VC 20plus** 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 \pm 21 μm (360 x 274 pixels); Resolution: 2560x1920 pixel (5 MPix)
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, 4A, Dimensions: 26.5 x 12x 8 cm, Weight: 2.5 kg;
Computer: Windows® 10, performance must meet system requirements, USB 2.0; 3.0
Measurement principle: optical, transmitted light through replica Technical changes may be made without prior notice.

Courage+Khazaka electronic GmbH since 1986
Mathias-Brüggen-Str. 91 · 50829 Köln · GERMANY
phone +49 221 95 64 99 0 · fax +49 221 95 64 99 1
info@courage-khazaka.de · www.courage-khazaka.de

