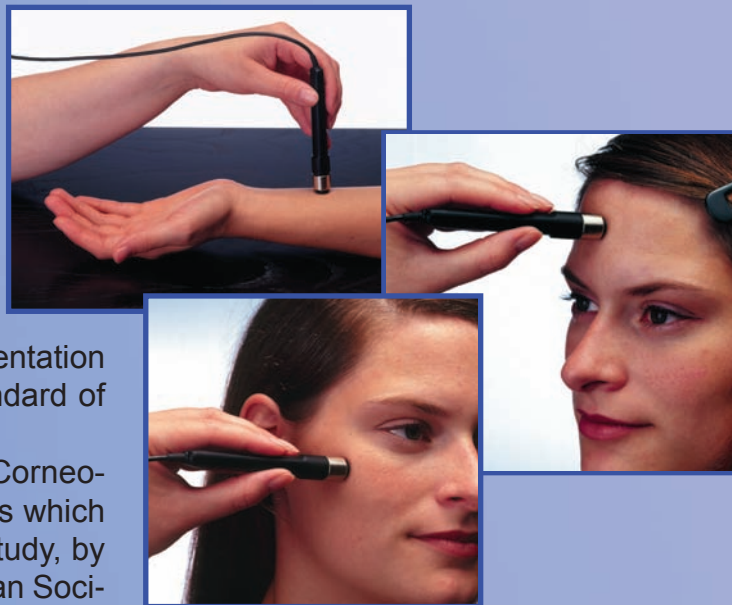


Corneometer® CM 825 – The World's most popular

Since 1980 the Corneometer® has provided a well established method to **reproducibly and accurately** determine the hydration level of the skin surface. It is the world's best selling skin hydration measurement device. This is documented by the numerous mentions in dermatology and cosmetology literature in which the terms "corneometry" and skin hydration measurements are inseparable. The accuracy of other hydration measurement instrumentation on the market is always assessed against the standard of the Corneometer®.

The Corneometer® CM 825 and its predecessor Corneometer® CM 820 are the only skin testing instruments which have ever been evaluated in a broad multicentric study, by the cosmetic industry together with the DGK (German Society of Scientific and Applicable Cosmetic) 2000 in vivo and 2003 in vitro*.



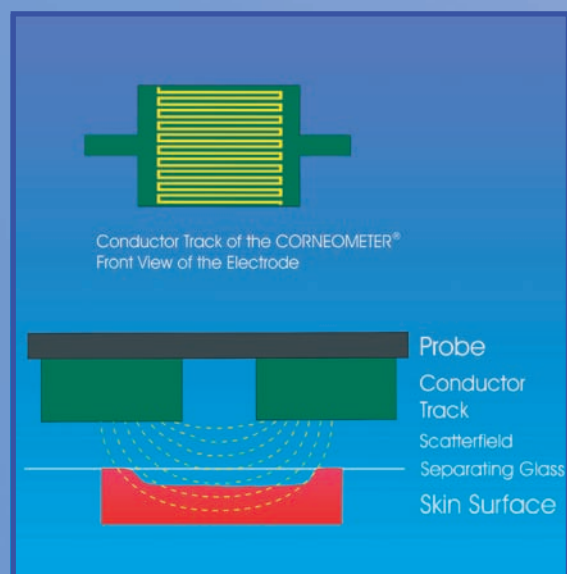
The Measuring Principle

The measuring principle of the Corneometer® CM 825 is based on **capacitance measurement** of a dielectric medium. Any change in the dielectric constant due to skin surface hydration variation alters the capacitance of a precision measuring capacitor.

One of the greatest advantages of this method, compared to others, is the fact that **products applied to the skin only have minimal influence** on the measurements.

The measurement can detect even slight changes in the hydration level. The reproducibility of the measurement is very high and the **measurement time is very short (1 s)**.

The design of the measuring head is such that the **measurement depth is very small** (in the first 10-20 µm of the Stratum corneum). This is important for investigation of epidermal hydration if the influence of deeper skin layers (e.g. from the blood vessels) is to be avoided. The Corneometer probe design ensures these layers are not being measured.



The Probe

The high quality electronics of the probe provide temperature stability and exclude interference with the measurement of the base capacity and power supply fluctuations.

A spring in the probe head ensures constant pressure on the skin, enabling exact, reproducible measurements which do not influence the skin.

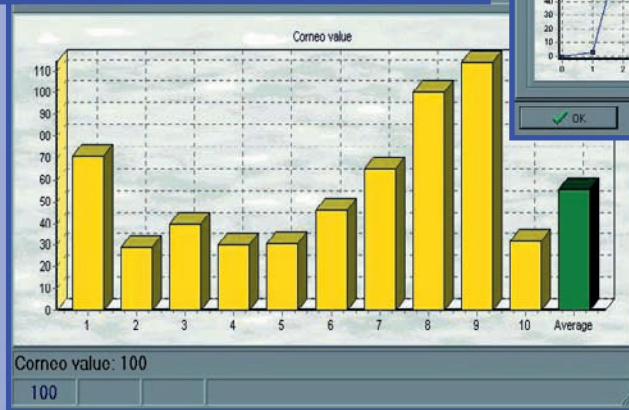
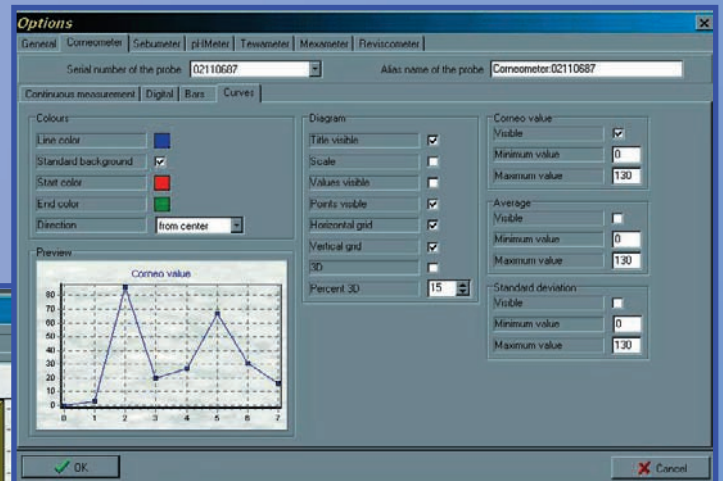
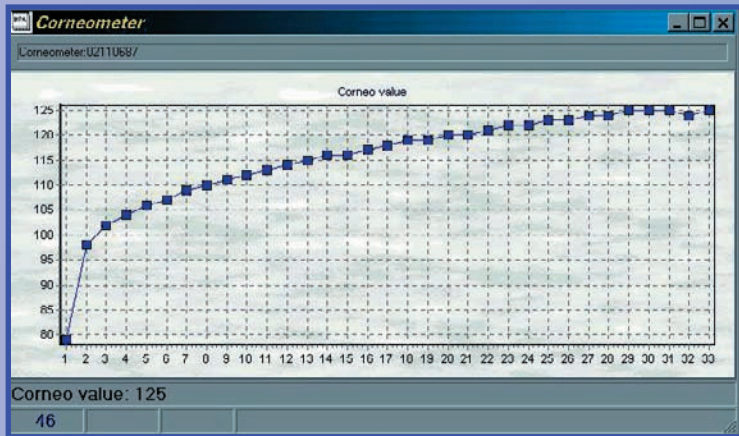
The low weight of the probe and the small measuring surface (49 mm²) allow easy handling, measurements on all body sites and simple cleaning after the measurement.



* U. Heinrich, U. Koop, et al.: Multicentre comparison of skin hydration in terms of physical-, physiological- and product-dependent parameters by the capacitance method (Corneometer CM 825), *International Journal of Cosmetic Science*, 2003, 25, 45-51

ular Skin Hydration Measurement Instrument

All calibration data are inside the probe. Thus the probe is completely self contained and can be connected to different device types. It is also a significant advantage for quick and easy servicing of the probe.



Check Calibration

The new technology means the probe does not require frequent, complicated and time consuming recalibration. The accuracy of the probe (calibration values and penetration depth) can easily be checked any time.



Continuous measurements directly on the skin or indirectly, with a small air chamber on the probe head, are possible.

An ambient condition sensor to measure the relative humidity and temperature of the environment can be connected to the system.

Technical Data:

Dimensions: Length: 11 cm Weight: approx. 41 g, Measuring surface: 49 mm²

Measurement principle: capacitance, Measurement frequency: 0.9-1.2 MHz, Accuracy: $\pm 3\%$

Technical changes may be made without prior notice.