

### MOISTURIZING CLINICAL EVALUATION: BETWEEN TRADITIONNAL AND HIGH-TECH

Studies always highlight that the hydration is the most sensitive claim for the consumers. Since the superficial layers of the epidermis, investigators gradually go through the different skin layers analysing the overall skin hydration. Skin hydration, as a **gold claim**, is often evaluated for a large range of product functionalities such as **aging, soothing, mechanical properties, pollution, radiance and complexion...** The best-known measurement principle uses **the skin electrical properties** to assess the moisturizing effect of the Stratum Corneum, the epidermis and the dermis. The test indirectly measures either the capacitance, the impedance or the permittivity with specific characteristics to study the several layers of the skin. The measure is **easy, fast, reproducible** and **well established** and can be carried out in contrasting climate and various ethnicities:

- **Stratum Corneum:** Corneometer® (C+K), Dermalab, Epsilon (BioX), MoistureMeter SC, Skicon-200, DPM 9003,
- **Epidermis:** MoistureMeterEpiD,
- **Dermis:** MoistureMeterD

**Quantitative and qualitative alternatives measures** have emerged with different levels of technology:

- **Micro-topography analyse:** MoistureMap® (C+K), Epsilon (BioX),
- **Infra-red Spectroscopy:** Dermo,
- **TEWL** for Trans Epidermal Water Loss, indirect method: Tewameter® TM 300 and Nano (C+K), Aquaflex (BioX), Dermalab, Evaporimeter, Vapometer...
- **The cutaneous surface visualisation:** Visioscan (C+K), Dermalab, Hirox, and all other camera systems.
- **The scoring by technician experts and dermatologists** represent a valuable approach giving, with specific scales, many information through visual and tactile objectivation.

Hydration can be objectivated using **very high-tech and non-invasive** methods through various ways:

- **The skin structure visualization:** MPT Flex Optical Multiphoton Tomography, Scanner, Vivascope and Vivosight and Laser Confocal microscopy,
- **The skin molecular water content** with Confocal microscopy LBRAM 800 and Raman spectroscopy gen2-SCA.
- **The latest technology developed** is LC-OCT 3D microscopy enables both quantitative and visual results.

**Sensory analysis** by trained panels or naïve subjects giving scientific objectivation can be combined with face emotional analysis. Then **consumer testing** under normal conditions contribute also to this assessment. The skin studies include scalp ones. For the haircare different methods have been developed to substantiate this claim through combing, friction, traction, structure or gravimetry analysis. We advise you to take time with the CRO's to design each protocol and define precisely, the inclusion criteria, the time measurements, treatment conditions, the optimal device... You never waste time briefing these essential elements.



### HOW TO FIND THE METHODS

27 method(s) / 75 laboratory(ies)  
for the claim :  
Moiturizing

Biometrological tests: skin, hair, All products types - Moiturizing -

Reset the search Search

Advanced filters Experts filters

10 method Laboratories Devices & Methods

- Biomarkers [skin, hair, nails]
- Biomechanical properties nanoscale - Propriétés biomécaniques échelle nano
- Custom Protocol [UV]
- Custom Protocol [hydration]
- Custom Protocol [make-up]
- Hair orientation - Orientation des cheveux
- Hair structure
- Hair surface
- Hairdresser evaluation - Evaluation par un coiffeur
- Hydration & micro-topography - Hydratation et micro-topographie
- Hydration - Hydratation
- Hydration - Hydratation [Stratum Corneum]
- Omics: All methods
- Skin molecular composition - Composition moléculaire de la peau
- Skin penetration - pénétration de la peau
- Skin structure
- Skin surface
- TEWL - PIE
- Visual Scales - Echelle visuelle [Dryness]

SKIN MOISTURIZING CLINICAL TESTING

27 METHODS

75 CRO'S IN 20 COUNTRIES

CONNECT FOR FREE SKINOBS.COM

# SYNTHESE TABLE

## Easily Find Clinical Testing

STUDIED PARAMETER	QUANTITATIVE AND/OR VISUAL METHOD	SEMI-QUANTITATIVE AND/OR VISUAL METHOD
Stratum Corneum conductance	Epsilon (Biox), DPM 9003 (NovaTech), Moisturemeter SC (Delfin), Epsilon (Biox), DermaLab (Cortex), Skicon 200...	MoistureMap (C+K)
Epidermis conductance	Moisturemeter EpiD (Delfin), Dermo (Varenes)	
Full Skin conductance	Moisturemeter D (Delfin)	
Barrier function by TEWL	Tewameter® TM 300 and Nano (C+K), Aquaflux (Biox), Evaporimeter, Vapometer (Delfin, Dermalab (Cortex)...	
Skin Topography	Epsilon (Biox), DermaTOP-HE-60 (Eotech), SpectraCam (Newtone), Visiocan and MoistureMap MM 100 (C+K), C-Cube (Fixience), TTVi 60 Skin Damage Visualizer (Wheebridge)...	Antera 3D (Miravex), Visia CR (Canfield), Clarity 3D Mini (BTBP), Neo Voir II (C-Lab Co), SIAScope (Medxhealth) Videomicroscope (Hirox), Dermoscope (Dino-lite), DermLite DL 100, Videometer Lav, VEO6 DS3 (Canfield), DermaLab Videoscope (Cortex)
Skin Surface & Global Aspect	Visual and tactile objectivation with Scoring by technician experts and dermatologists using specific scales and photos, Sensory analysis by trained panels or naïve subjects, Emotions evaluation by LA. Photos Consumer testing	
Skin structure & Thickness	LC-OCT (Damae), MFT Flex Optical Multiphoton Tomography, Laser Confocal microscopy, Vivascope (Mavig), Vivasight (Michelson), Dermascan, Dermcup	DUB® SkinScanner 50/22 (Eitech), Ultrasound WED-2018 (Wed)
Skin Molecular Content	LC-OCT (Damae), Sonde Raman (Horiba Jobinj, Raman spectroscopy gen2-SCA (RiverD), Genomic, metabolomic, proteomic analysis	
Softness	Frictometer (C+K), tribologie (Ecole Centrale)	

HYDRATION TESTING SUMMARY #1 - 12/2020

## TO GET FURTHER & DEEPER

### ZOOM#1:

<https://skinobs.com/news/produits/soins-visage/zoom-1-by-skinobs-newsletter-special-cosmetic360-tendances-et-infos-sur-les-tests-defficacite/>

### ZOOM#15:

<https://skinobs.com/news/conseils-d-expert/dossiers-thematiques/zoom15-les-dernieres-tendances-en-matiere-dhydratation/>

• Link to the 25 articles in French edited in the Newsfeed since 2015: <https://skinobs.com/news/?s=hydratation>

• Link to the 50 articles in English edited in the Newsfeed since 2015: <https://skinobs.com/news/en/?s=hydratation>

## LINKS TO THE HYDRATION DIRECT METHODS

### AquaFlux 200 - Biox System

<https://skinobs.com/methode.php?id=26>

### Corneometer® CM 825

Courage & Khazaka

<https://skinobs.com/methode.php?id=10>

### Correlative microscopy - BIOMECA

<https://skinobs.com/methode.php?id=288>

### DermaLab TEWL - Cortex Technology

<https://skinobs.com/methode.php?id=76>

### DermaLab Hydration

Cortex Technology

<https://skinobs.com/methode.php?id=73>

### Dermo - Varenne Technologies

<https://skinobs.com/methode.php?id=323>

### DPM 9003 – Dermal Phase Meter

NOVA TECH CORP

<https://skinobs.com/methode.php?id=301>

### DUB®SkinScanner 33 - EOTECH

<https://skinobs.com/methode.php?id=257>

### Epsilon - Biox System

<https://skinobs.com/methode.php?id=28>

### LabRam 800 – Sonde Raman

HORIBA France

<https://skinobs.com/methode.php?id=79>

### LC-OCT - Damae MoistureMeterSC

<https://skinobs.com/methode.php?id=508>

### MoistureMap MM 100

Courage & Khazaka

<https://skinobs.com/methode.php?id=40>

### MoistureMeterD & Compact

Delfin Technologies

<https://skinobs.com/methode.php?id=34>

### MoistureMeterEpiD - Delfin Technologies

<https://skinobs.com/methode.php?id=5>

### MoistureMeterSC - Delfin Technologies

<https://skinobs.com/methode.php?id=55>

### MoistureMeterSC - Delfin Technologies

<https://skinobs.com/methode.php?id=55>

### MPT Flex Optical Multiphoton Tomography - JENLAB

<https://skinobs.com/methode.php?id=83>

### Raman spectroscopy gen2-SCA

RIVERD

<https://skinobs.com/methode.php?id=215>

### RG Evaporimeter - Cyberderm

<https://skinobs.com/methode.php?id=399>

### Tewameter Nano - Courage & Khazaka

<https://skinobs.com/methode.php?id=350>

### Tewameter 300 - 330T

Courage & Khazaka

<https://skinobs.com/methode.php?id=13>

### Tewameter Hex

Courage & Khazaka

<https://skinobs.com/methode.php?id=449>

### VapoMeter - Delfin Technologies

<https://skinobs.com/methode.php?id=31>

### Vivascope - MAVIG

<https://skinobs.com/methode.php?id=8>

### VivoSight Scanner OCT

MICHELSON DIAGNOSTIC

<https://skinobs.com/methode.php?id=384>

## Contact

contact@skinobs.com - [www.skinobs.com](http://www.skinobs.com) - Technolac, 12 allée du lac de Garde, 73370 Le Bourget-du-lac, FRANCE