



Q.Light® ACNE CARE

Q.Light® Phototherapy for Acne

The **Q.Light® ACNE CARE** system is specially designed for the application of mild and moderate acne treatments in medical practices, clinics, specialized treatment centers, beauty salons and for treatment at home.

The main applications for the **Q.Light® ACNE CARE** system are:

mild and moderate

- **Common Acne**
- **Acne Vulgaris**
 - Acne Comedonica
 - Acne Papulopustulosa
 - Acne Conglobata



Two different devices are available for acne care:

Q.Light® PRO UNIT
with ACNE CARE module



Q.Light® ACNE CARE



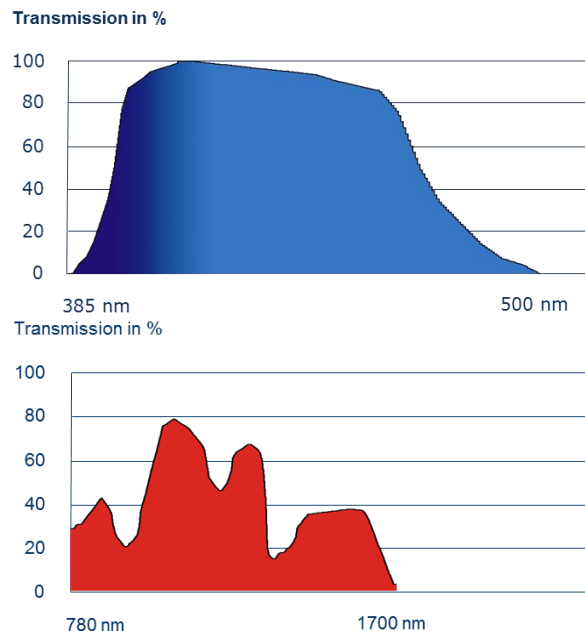
Technical data of Q.Light® ACNE CARE

Models	Q.Light® ACNE CARE	Q.Light® PRO UNIT
Digital display	No	Yes
Module	Fixed system	ACNE CARE
Ø Standard treatment area	15 cm fixed	5 – 30 cm variable
Spectrum	385 – 1700 nm	
Polarization	≥ 98 %	
ViS emission	Wavelength of 385 – 500 nm	
Infrared emission	Near-infrared radiation of 780 – 1700 nm	
UV emission	No UV-radiation	
Light temperature	N.A.	
Certification	DIN EN ISO 9001:2008 & EN ISO 13485:2012 + AC:2012	
CE Mark	0197	

excites Porphyrin

Spectrum & power density of **Q.Light®** ACNE CARE systems

Q.Light® emission spectrum with patented light source technology



Q.Light® - treatment parameters & treatment dose in min. for **Q.Light®** ACNE CARE & **Q.Light®** PRO UNIT with ACNE CARE module

Device	Polarization-degree	Treatment-distance	Treatment-diameter	Therapy Dose in min.
Q.Light® PRO UNIT	≥ 98 %	30 cm	8 – 30 cm	12
		20 cm	7 – 20 cm	10
		10 cm	5 – 10 cm	6
Q.Light® ACNE CARE	≥ 98 %	15 cm	15 cm	12
		10 cm	10 cm	10
		5 cm	5 cm	6

Additional technical data for **Q.Light®** ACNE CARE systems

Models	Q.Light® ACNE CARE	Q.Light® PRO UNIT
Medical devices class	IIa	
Voltage	230 V, 50 - 60 Hz	
Power supply	50 VA max.	60 VA max.
Safety class	II, Type B	
Ø Treatment-energy efficiency	40 mW/cm², 2,4 Joule/cm² (min.) at standard treatment distance	
Weight	1'120 g	1'200 g
Size	260 x 158 x 173 mm (L x W x H)	
Guarantee	24 month	

Stand HOME

Standwagon STANDARD

Standwagon PRO



defined spectrum

Details about Acne

Cosmetic medicine, also called cosmetology or dermatocosmetics, deals with skin disorders. Dermatocosmetic treatments rank very highly, as they support medical treatments, occasionally even contributing decisive elements to their success. A very good example for skin disorders that both physicians and beauticians are frequently confronted with is common acne or acne vulgaris:

Common acne

Common acne is one of the most widespread skin disorders. It typically begins during puberty, often - but not always - subsiding when patients are in their thirties. Depending on the severity of the disorder, acne vulgaris can take on three different forms:

Acne comedonica

Acne comedonica is characterized by the predominant presence of open and closed comedones appearing in varying numbers and intensities, but mainly in the facial region, which is very distressing for most patients.

Acne papulopustulosa

With the inflammation progressing, painful papules tend to appear, often leaving behind visible scars after healing and thus provoking significant emotional stress.

Acne conglobata

The severest form of common acne is acne conglobata. Acne conglobata is characterized by the concurrent presence of comedones, pustules, indurated papules and abscesses with interconnecting sinuses that affect large skin regions. They develop on the back and the nape; in the latter case, it's called acne inversa. Patients are generally "stigmatized" by numerous scars that can be very pronounced, even disfiguring.

The phototherapy with a range of 385 - 500 nm and 780 - 1700 nm (red & blue) is proving to be a very successful method of treatment against acne.

Significant treatment results with **Q.Light®** ACNE CARE



before



after phototherapy



before



after phototherapy

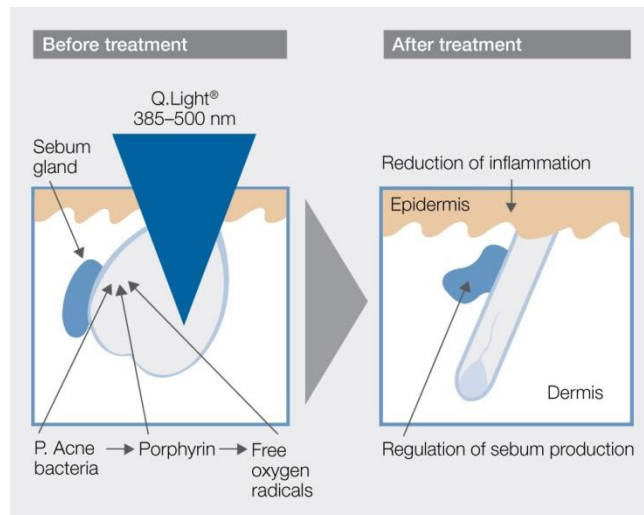
regulated photomodulation

Effectiveness of the **Q.Light®** phototherapy for Acne

Acne is a dermatological disease that interests about 40 % of the population between 12 and 30 years.

Q.Light® ACNE CARE has been specially designed for the treatment of acne. Due to the concentrated spectrum between 385-500 nm, the additional use of near-infrared radiation and power density, optimal treatment results are achieved.

As part of its reproduction and metabolism process, the Propionil- bacterium Acnes (P. Acne bacteria) releases a certain pigment called porphyrin. Porphyrin molecules, once absorbing photons, become chemically active and transform into a state of aggregation that can result in several formations. One of the formations is a free oxygen radical that attacks the cell membrane and leads to the destruction of the P. acne bacterium. Like any other photochemical reaction, the efficacy of the process is determined by the production rate of excited porphyrin molecules, influenced by concentration of porphyrin, concentration of photons and the wavelength of the photons.



How to treat acne with **Q.Light®**

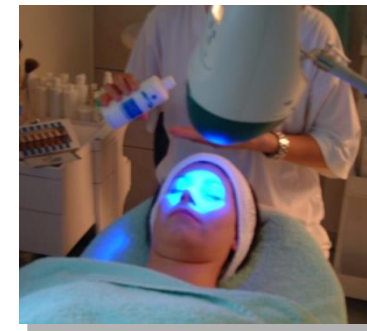
Q.Light® ACNE CARE with specified spectrum (blue range of light and the high intensity of the IR irradiation) has a favorable influence on acne. Scientific studies and empirical reports show individual cases of acne to be significantly reduced or even completely healed by regular exposition to **Q.Light®**. As individual treatment sessions are very short, **Q.Light®** phototherapy can easily be integrated into traditional - local or systemic - regimens of acne therapy. For optimal results it is recommended to clean the area to be treated with a mild cleanser. Then direct the **Q.Light® ACNE CARE** beam in a right angle to the treatment area. The average dose applied is 9.6 J/cm² on a daily base. The treatment time per session is 10 minutes with 40 mW/cm² = treatment distance of approx. 20 cm with **Q.Light® PRO UNIT** and 10 cm with **Q.Light® ACNE CARE**.



Acne before treatment with Q.Light



Acne after treatment with Q.Light



for best treatment results

Acne classification

	Burtons Acne classification	
Grade 0		Total absence of lesions
Grade 1	Sub clinical acne	Few comedones visible only in close examination
Grade 2	Comedonal acne	Comedones with slight inflammation
Grade 3	Mild acne	Inflamed papules with Erythema
Grade 4	Moderate acne	Many inflamed papules and pustules
Grade 5	Severe nodular acne	Inflamed papules and pustules with several deep nodular lesions
Grade 6	Severe cystic acne	Many nodular cystic lesions with scarring

Factors that accelerate acne development

- Changing hormone levels in girls and women 2 - 7 days before menstrual period starts.
- Hormonal changes relating to pregnancy or birth control pills.
- Severe, prolonged stress.
- Certain drugs including androgens, lithium and barbiturates.
- Greasy cosmetics.
- Friction on the skin.
- Environmental irritants - pollution and high humidity.

Scientific research on acne care

An action spectrum for blue and near ultraviolet inactivation of *Propionibacterium acnes*; with emphasis on a possible porphyrin photosensitisation.

Kjeldstad B, Jhonsson

Photochemistry-Photobiology 1986: 43(1); 67-70

Singlet oxygen (1 delta g) generation from coproporphyrin in *Propionibacterium acnes* on irradiation.

Arakane K, Ryu A, Hayashi C, Masunaga T, Schinmoto K, Mashiko S, Nagano T, Hirobe M.

Biochem Biophys Res Commun 1996; 223 (3): 578-82.

Effect of Visible Light on Reactive Oxygen Species Production

R. Lubart,¹ H. Friedmann,¹ R. Lavie,¹ N. Grossman,² M. Sinyakov and S. Belotsky

Department of Chemistry and Physics, Department of Life Sciences Bar-Ilan University, Ramat-Gan 52900, Israel

Visible light promotes proliferation of normal skin cells

Grossman, N., Reuveni, H., Halevy, S., Lubart, R., J. Invest. Dermatol., 102649A (1994)

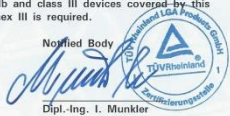
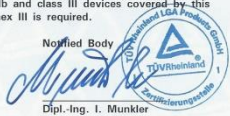
Improvement of rheologic parameters, ligand- and oxygen-binding capacity of erythrocytes of circulating blood after exposure of the body surface to visible polarized light.

K.A.Samoilova, K.D.Obolenskaya, A.V.Vologdina, N.V.Mineeva, N.Yu.Romanenko, M.F.Balljuzek: Published: 8th Congress of European Society for Photobiology. Book of Abstracts, P106, p.145, Granada (1999)

basic research

Quality certificate

Q.Light® phototherapy systems are certified active medical products based on DIN EN ISO 9001:2008 & EN ISO 13485:2012 + AC:2012 and carry the CE mark **CE 0197**

EC Certificate Directive 93/42/EEC Annex V Production Quality Assurance Medical Devices		
Registration No.:	DD 60107707 0001	
Report No.:	21238979 001	
Manufacturer:	Q. Products AG Säntisstr. 11 9401 Rorschach Schweiz	
Products:	Medical Devices for Light Therapy/Phototherapy (see attachment for products included) Replaces Certificate, Registration No.: DD 60098314 0001	
Expiry Date:	2021-01-28	
<p>The Notified Body hereby declares that the requirements of Annex V of the directive 93/42/EEC have been met for the listed products. The above named manufacturer has established and applies a quality assurance system, which is subject to periodic surveillance, defined by Annex V, section 4 of the aforementioned directive. For placing on the market of class IIb and class III devices covered by this certificate an EC type-examination certificate according to Annex III is required.</p>		
Effective Date:	2016-01-29	 Dipl.-Ing. I. Munkler
Date:	2016-01-29	
TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg		
TÜV Rheinland LGA Products GmbH is a Notified Body according to Directive 93/42/EEC concerning medical devices with the identification number 0197.		

Free Sales Certificate

This certification approves **Q.Products AG** to manufacture and sell **Q.Light®** phototherapy devices internationally.

swissmedic

FREE SALES CERTIFICATE	
Nr.: FSC-16-20243	valid until: 21 February 2019
<p>The SWISS AGENCY FOR THERAPEUTIC PRODUCTS certifies herewith, that medical devices are regulated in Switzerland under the Federal Law on Medicinal Products and Medical Devices (Law on Therapeutic Products) of 15 December 2000 in force since 1 January 2002 and the Medical Devices Ordinance of 17 October 2001 in force since 1 January 2002.</p> <p>The following medical device(s) meets (meet) the legal requirements set out in the Swiss Medical Devices Ordinance and which incorporates the Medical Devices Directives of the European Union:</p> <p>Q. Light® Photo Therapy Devices.</p> <p>Therefore, the firm Q.Products AG, Säntisstrasse 11, 9401 Rorschach, Switzerland,</p> <p>in conformity with the medical devices law of Switzerland is authorized to manufacture and sell on the Swiss market and to export into any country the CE marked medical device(s) above-mentioned.</p> <p>This certificate is valid until 21 February 2019</p> <p>Bern, 22 February 2016</p> <p>Swiss Agency for Therapeutic Products Medical Devices Division</p> <p> Claude-Philippe Pelletier, Master of Law</p> <p>Fee: CHF 300.00</p>	
<p>Schweizerisches Heilmittelinstitut Institut suisse des produits thérapeutiques Istituto svizzero per gli agenti terapeutici Swiss Agency for Therapeutic Products</p> <p>Swissmedic Hallerstrasse 7 Postfach CH-3000 Bern 9 www.swissmedic.ch Tel. +41 58 462 02 11 Fax +41 58 462 02 12</p>	

certified medical products

Q.Products AG – biotechnology & photomedicine

Q.Products AG develops and manufactures specialized phototherapy devices for professional application and for self medication at home. Additionally to our **Q.Light® ACNE CARE** we also manufacture the following specialized systems:

- **Q.Light® PAIN CARE**
- **Q.Light® WOUND CARE**
- **Q.Light® SAD CARE**
- **Q.Light® PRO UNIT**

This professional device is a flexible system that works with different filter modules for all specialized treatments, the spectrum is adapted to the specific needs.

In addition, appropriate filters for color therapy are available.

Due to the comfort to set treatment time and treatment diameter, it is the ideal product for clinics, medical practices and esthetic salons.

Q.Products AG

Säntisstrasse 11, CH-9401 Rorschach

Fon +41 (0) 71 858 20 60

Fax +41 (0) 71 858 20 61

Email contact@QProducts.info

Web www.QLight.info

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specialized systems