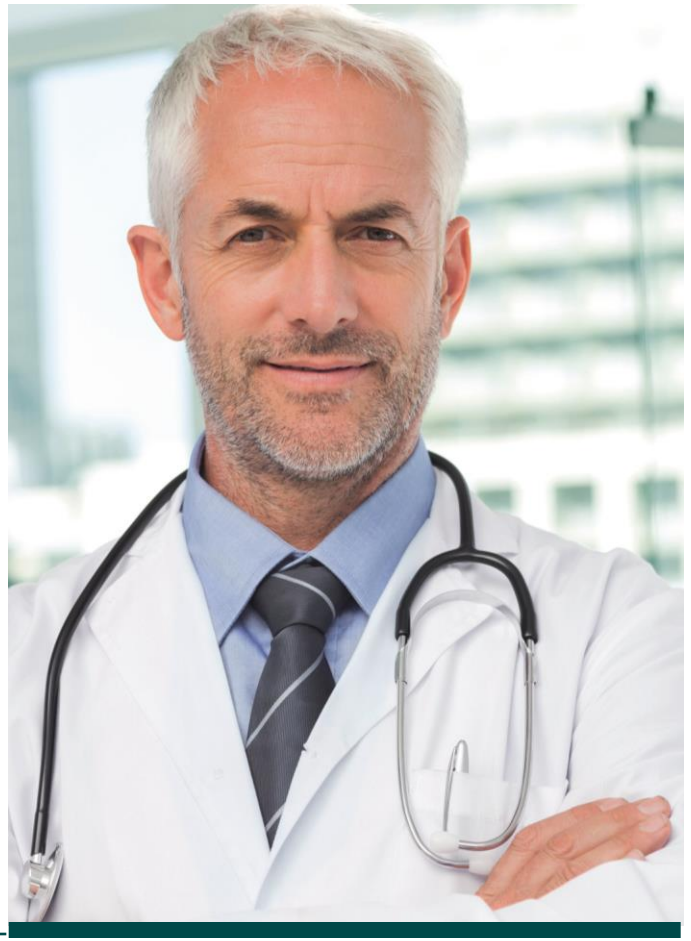
Q.Light® phototherapy



Q.Light® PAIN CARE

Q.Light® Phototherapy for treatment of acute and chronic pain

The **Q.Light**® **PAIN CARE** system is specially for the application of pain care treatments in medical practices, clinics, specialized treatment centres, nursing homes/services and for treatment at home.

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

- **Rheumatologic diseases**
- **Chronicle pain**
- **Back problems**

Two different devices are available for pain care:

Q.Light® **PRO UNIT with PAIN CARE module**

Q.Light® **PAIN CARE**

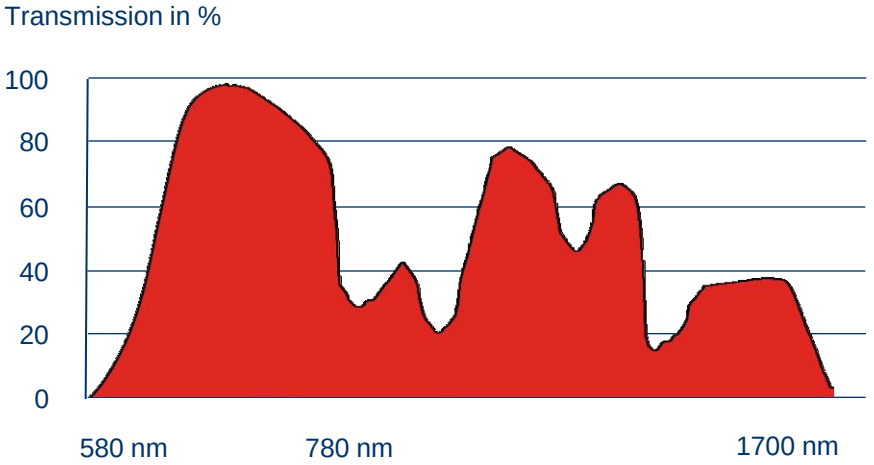
Technical Data of **Q.Light**® PAIN CARE

Models	**Q.Light® PAIN CARE**	**Q.Light® PRO UNIT**
Digital display	No	Yes
Module	Fixed system	**PAIN CARE**
Ø Standard treatment area	15 cm fixed	5 – 40 cm variable
Spectrum	580 – 1700 nm	
Polarization	≥ 98 %	
ViS emission	Wavelength of 580 – 780 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	

activates microcirculation

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

Q.Light® - emission spectrum with patented light source technology



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

Device	Polarization-degree	Treatment-distance	Treatment-diameter	Therapy Dose in min.
Q.Light® PRO UNIT	≥ 98 %	40 cm	10 – 40 cm	20
		30 cm	7 – 30 cm	10
		20 cm	5 – 20 cm	5
Q.Light® PAIN CARE	≥ 98 %	20 cm	20 cm	15
		15 cm	15 cm	10
		10 cm	10 cm	5

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

Models	Q.Light® PAIN 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 B x H)	
Guarantee	24 month	

Stand HOME

Standwagon STANDARD

Standwagon PRO

defined spectrum

Systemic mechanisms of anti-inflammatory, immunomodulating effects of Phototherapy with visible and near infrared spectrum

Research of pain, treated with red and infrared radiation, demonstrates that the effect above the microvessels of the skin, influences the entire blood in the body positive.

The overall action can be described as the following:

Irradiated blood is able to influence the total volume of blood in the body within a time of 90 minutes. Continuation of changes are observed to be continued, at a slower rate, for up to 24 hours after irradiation. The dose of emitted light applied for treatment is 12 J/cm^2 with a wavelength of 580-1700 nm and a polarization degree of 98 %

The treatment result can be summarized as the following:

- Immediate effect on blood changes are due to transcutaneous photo-modification with a fast (30-90 minutes) translation of light-induced changes to the whole circulating volume of blood.
- Changes in blood cells and plasma of the entire circulating blood are induced.
- Increased functional activity of monocytes, granulocytes, lymphocytes, platelets and improves rheologic transport and gas-transport properties of erythrocytes
- Induced lipid peroxidation levels in the erythrocyte membrane and plasma
- Modified haemostasis
- Significant is also the corresponding decreases in the plasma content of pro-inflammatory cytokines and increased levels of anti-inflammatory Il10 and IFN-g; modulated growth content factors and increased growth-promoting plasma properties for keratinocytes, endotheliocytes, fiobroblasts and radiation-damaged autologous cells.

The changes demonstrated regulatory character of phototherapy and it's therapeutic efficacy for pain care even in cases of chronic pain.
Q.Light® Phototherapy can also successfully used for chronicle pain treatment.

Q.Light® is effective to treat pain

regulated photomodulation

Q.Light® PAIN CARE system with deep-red-beam for Physiotherapy, Rehabilitation & Sports medicine

General information about **Q.Light®** PAIN CARE

Q.Light® Therapy System is suited for use in standard-therapies, prophylactic treatment therapies and rehabilitation. It is a practicable and innovative high tech method of treatment. This medically certified device is already used by medical professionals in many countries. Anyone can benefit from this effective and low cost treatment. Also physiotherapists, rehabilitation clinics and sports doctors increasingly set on **Q.Light®**.

The emitted red light and infrared light is incoherent, polarized and without ultraviolet radiation. This radiation has been shown to have an analgetic effect on the entire organism.

The bio-positive effects strengthen the immune system, inhibit inflammation and stimulate beyond the entire metabolism, the result is a sustained pain relief.

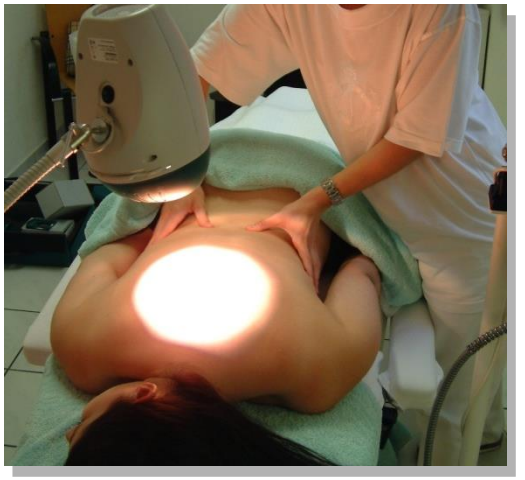
The effectiveness of the **Q.Light® PAIN CARE** system is based on an exactly defined spectrum and a polarized radiation. The system works with a spectrum of 580 to 1700 nm and an energy output of 40 mW/cm² at standard treatment distance.

Moreover, **Q.Light®** therapy will certainly play an important role in individual health care due to it's ease of use and reasonable price.

Side effects or contraindications have not been reported.

How to treat pain with **Q.Light®**

General pain care



For optimal results the **Q.Light®** deep red beam pain care therapy should be applied on a daily base. The average dose should be at least 12 J/cm². The light beam is directed in a right angle to the area to be treated.

Q.Light® PAIN CARE therapy can be an ideal complementary treatment to a variety of pain management programs.

The patient is irradiated per treatment only 5-10 minutes by **Q.Light® PAIN CARE** system, ideally twice a day. In acute cases, three to four times per day. The treatment distance is about 10-40 cm.
For the treatment of joints, the treatment time should be extended per treatment safely up to 20 min. The minimum treatment distance is 10 cm.

for best treatment results

Scientific research on pain care

The use of monochromatic Infrared Energy Therapy in Podiatry.

Carnegie D.

Published: Management. Nov/Dec. 2002. 129-34

Restoration of sensation, reduced pain, and improved balance in subjects with diabetic peripheral neuropathy: a double-blind, randomized, placebo-controlled study with monochromatic near-infrared treatment - Emerging Treatments and Technologies

by David R. Leonard, M. Hamed Farooqi, Sara Myers

Published: Diabetes Care, Jan, 2004

Risk of falls in elderly patients is markedly reduced through improvement in sensation, balance, and gait with infrared photo energy, and other physical therapy (Abstract).

Kochman AB:

Published: J Geriatric Phys Therapy 25:29, 2002

Changes of cytokine content in human blood after ist in vivo and invitro exposure to visible polarized light at therapeutic dose.

K.A.Samoilova, D.I.Sokolov, K.D.Obolenskaya.

In: Abstracts. 13th International Congress on Photobiology and 28th Annual Meeting American Society for Photobiology. San Francisco, 2000, N 327, p.108..

Practical experience and references with **Q.Light®** PAIN CARE

Geriatric therapy

Gera, Germany, Dr. Stotz,
Several patients with Haematomas and Thorax Contusions were treated successfully with **Q.Light®**

Quotation: **Q.Light®** therapy in combination with laser arises to excellent results in pain relief.

Sports medicine

FC Erzgebirge Aue, Germany, Mr. Borchert, Masseur Therapist
Constantly treats injured players with **Q.Light®**, specially with haematomas, muscle tension and tissue damages.

Quotation: **Q.Light®** in combination with physiotherapy faster healing and effective reduction of pain.

Pain therapy

Nail- & Cosmetic Studio, Gera-Ernsee, Germany, Reiko Voigt

Quotation: Within the range of the tattoo and permanent make-up we have made the experience that hardly no swelling at the freshly stung area occurs. In addition bleeding of the stung area has decreased enormously. By customers recommending our work with **Q.Light®** Phototherapy we where able, in this range of customers, to increase our activities by 60 %..

for satisfied patients

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

TÜVRheinland

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

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.

Effective Date: 2016-01-29

Date: 2016-01-29

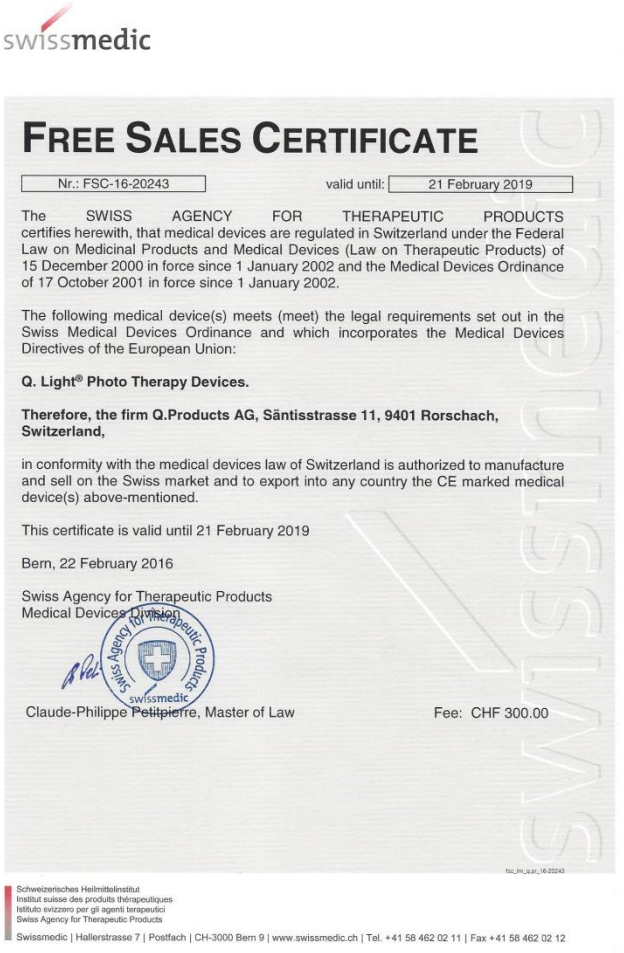
Notified Body
Dipl.-Ing. I. Munkler

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

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.

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:

Q. Light® Photo Therapy Devices.

Therefore, the firm Q.Products AG, Säntisstrasse 11, 9401 Rorschach, Switzerland,

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.

This certificate is valid until 21 February 2019

Bern, 22 February 2016

Swiss Agency for Therapeutic Products
Medical Devices Division

Claude-Philippe Petitpierre, Master of Law

Fee: CHF 300.00

Schweizerisches Heilmittelinstitut
Institut suisse des produits thérapeutiques
Istituto svizzero per gli agenti terapeutici
Swiss Agency for Therapeutic Products

Swissmedic | Hallerstrasse 7 | Postfach | CH-3000 Bern 9 | www.swissmedic.ch | Tel. +41 58 462 02 11 | Fax +41 58 462 02 12

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® PAIN CARE** we also manufacture the following specialized systems:

- **Q.Light® ACNE 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

Version 2016/02/16

Q.Light® phototherapy

specialized systems