

Technical data*

Type	HILARIS® TL 50	HILARIS® TL 100	HILARIS® TL 150
Output power	50 mW	100 mW	150 mW
Wavelength	660 nm	660 nm	660 nm
Operating time	up to 11 h	up to 6 h	up to 7 h
Length	175 mm	175 mm	225 mm
Diameter	20 mm	20 mm	20 mm
(Rechargeable) batteries	2 x AA	2 x AA	3 x AA

Classification: Laser Class 3B in accordance with EN 60825-1; The operating time applies to one set of (rechargeable) batteries
* Modifications reserved!

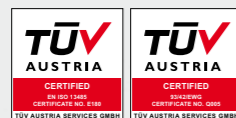
Quality controlled production from Austria

Regularly inspected by the TÜV Austria, documented in the individual test protocol.

Additional specifications:

- L** Long service life of at least 20,000 hours through the use of high-quality materials and components
- L** All power levels in visible wavelength range
- L** Continuous monitoring of the output power
- L** Absolutely constant output power, even while battery voltage decreases
- L** Automatic switch-off if battery voltage too low
- L** Key switch to prevent unauthorised use
- L** Robust aluminium case for secure storage of laser device and accessories

CE 0408



HELTSCHL
Medizintechnik *treat gently,
heal effectively*

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Note: HILARIS® is a registered brand of Heltschl GmbH.

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HILARIS® TL Low-Level-Laser



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Biological Effects of Low-Level Laser Therapy

Promotion of wound healing:

The absorbed laser light increases the synthesis of ATP (adenosine triphosphate). The activation of cell metabolism leads to acceleration of the cell division rate of fibroblasts and epithelial cells and promotion of the activity of the macrophages and phagocytes. These effects enable more rapid wound healing.

Analgesic effect:

The release of pain-killing biomediators and neurotransmitters (serotonin, endorphins) is promoted. The release of biomediators causing or transmitting pain (Substance P, bradykinin, prostaglandins) is suppressed. This results in an analgesic effect.

Antiinflammatory and antioedematous effect:

The above biomediators also have an antiinflammatory effect, and an antioedematous effect as a result of improved microcirculation.

Medical areas of application and indications

- L Wound treatment:** Ulcus cruris, decubitus ulcer, postoperative wound treatment, acute and chronic wounds, keloids, ...
- L Sport medicine:** Haematomas, bruises, strains, sprains, muscle injuries, tennis and golf elbow, ...
- L Orthopaedics:** Arthrosis, prosthesis-pressure ulcers, inflammation of the musculoskeletal system, ...
- L Gynaecology and midwifery, urology:** Sore nipples, mastitis, Caesarian scars, episiotomy, genital herpes, inflammation of the mucous membranes, ...
- L Oncology and radiotherapy:** Mucositis, stomatitis, radiodermatitis, ...
- L Neurology:** Treatment of chronic and acute pain, neuralgia, amputation stump pain, phantom pain, body and ear acupuncture, ...
- L ENT area:** Rhinitis, sinusitis, pharyngitis, otitis media, ...
- L Oral and maxillofacial surgery:** Treatment of pain and wounds after extractions, prosthesis pressure points, aphthae, gingivitis, herpes labialis, ...
- L PDT:** Antimicrobial photodynamic therapy for microorganism reduction, ...
- L Veterinary medicine:** Otitis, poorly healing and chronic wounds, joint pain, bite wounds and injuries, ...

Technical advantages of therapy laser HILARIS® TL

- L A modular concept – replaceable and sterilisable adapters**
Every type of low-level laser treatment can be performed simply and with the maximum possible output power.



1. Adapter for treatment in ENT area
2. Adapter for point irradiation
3. Adapter for attaching different optical wave guides
4. Optical waveguide applicator angled 45°
5. Optical waveguide applicator, straight
6. Optical waveguide applicator with 90° bend

- L Integrated timer with choice of six therapy durations**
Pressing the button briefly starts the therapy – no need to press the button continuously.
- L Area radiation without losses**
- L Ergonomic design for convenient and safe working**
- L Minimum operating costs through the use of standard (rechargeable) batteries**
- L Ideally suited for Haemo-Laser® therapy (intravascular laser irradiation of blood)**

