

# INFO FILE

# SIROLaser Blue.

LASER IN DENTISTRY



[SIRONA.COM/LASER](http://SIRONA.COM/LASER)

The Dental Company

sirona.

# INFINITE POSSIBILITIES FOR YOUR PRACTICE.

The right instruments are crucial for the success of your treatment. Dental lasers are an easy way of giving you and your patient even greater comfort and more options for treatment. They stand for less postoperative pain, more effective germ reduction, and better wound healing. Not only your patients benefit, your practice benefits as well. Satisfied patients are the best way to ensure success. **Enjoy every day. With Sirona.**

## THE BENEFITS OF DENTAL LASERS

- IMPROVED GERM REDUCTION
- USUALLY SCAR-FREE WOUND HEALING
- POSSIBILITY OF NOT USING ANTIBIOTICS
- MORE PRESTIGE FOR YOUR PRACTICE

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# THE FIRST DENTAL LASER WITH THREE WAVELENGTHS.

The SIROLaser Blue is the world's first dental laser to have a blue, an infrared, and a red diode. This gives it a range of 21 indications – from surgery to germ reduction to soft laser applications.



## MODERN TREATMENT METHODS FOR A MODERN PRACTICE

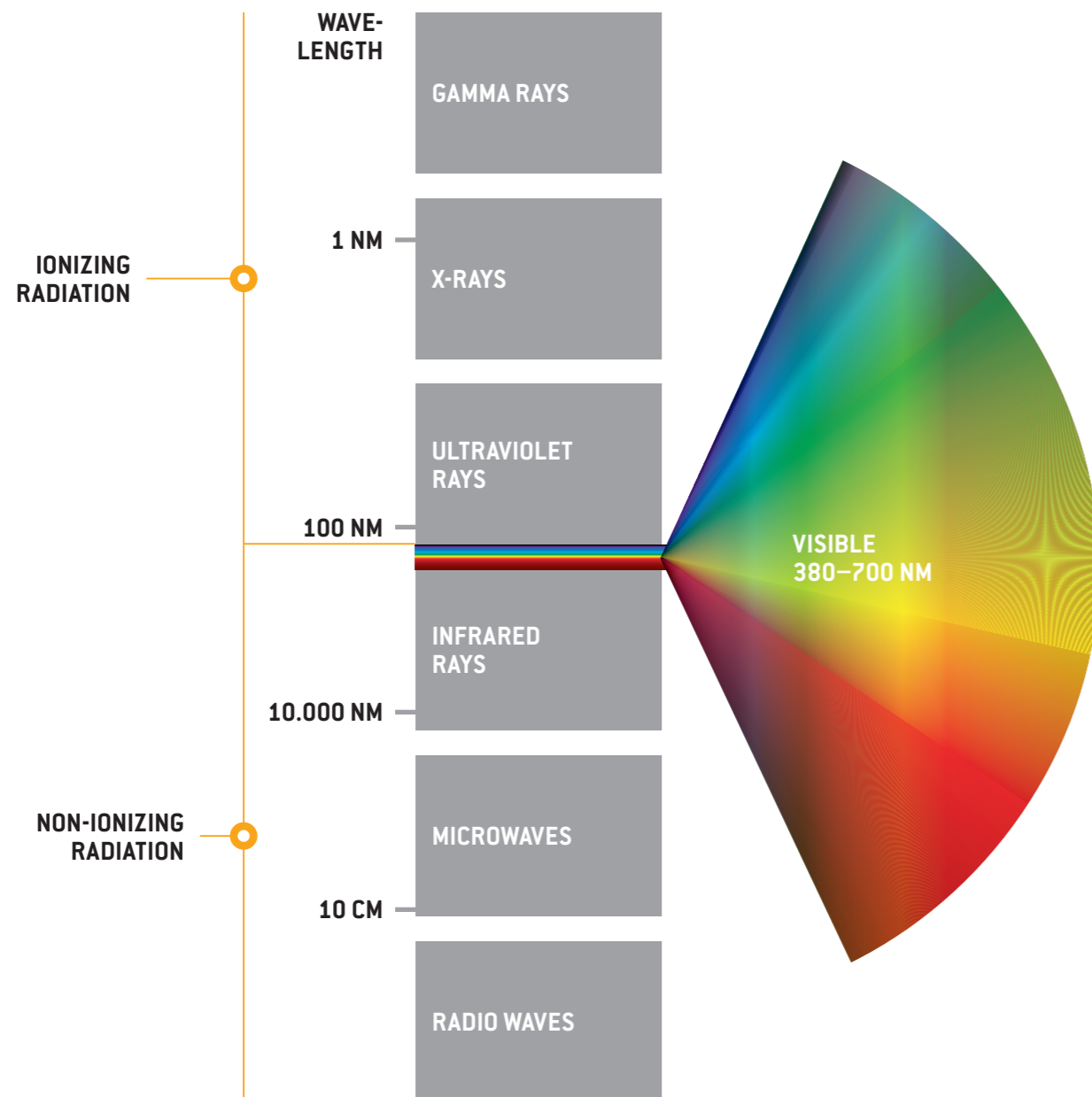
With the SIROLaser Blue, you decide on a new, innovative, and pioneering treatment method: You not only expand your range of treatments, you also optimize your treatment workflows. The SIROLaser Blue is ready to use in just a few steps – and you use

one device for a wide range of indications. You can also use the SIROLaser Blue for advertising your practice. The instrument helps set you apart from your competitors.

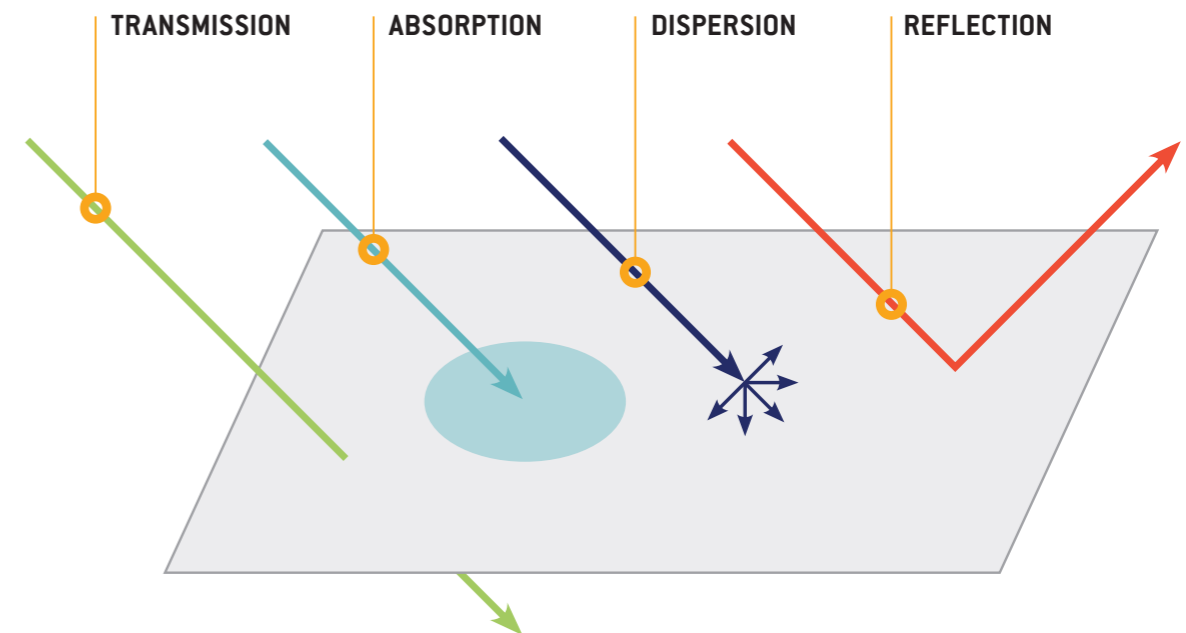
# HOW DOES A DIODE LASER WORK?

A diode laser uses one or more laser diodes (semiconductors) as a medium to generate the laser beam. The wavelength of the rays is the decisive factor. What a laser can do depends on the wavelength, which determines absorption, meaning the reaction of the light with tissue. This means that the laser energy is transferred to the tissue. Depending on the wavelength, different indications are covered. The wavelength depends on the kind of laser, i.e. whether a crystal, gas, or semiconductor is used to generate the rays. In a diode laser, the laser beam is generated using a laser diode.

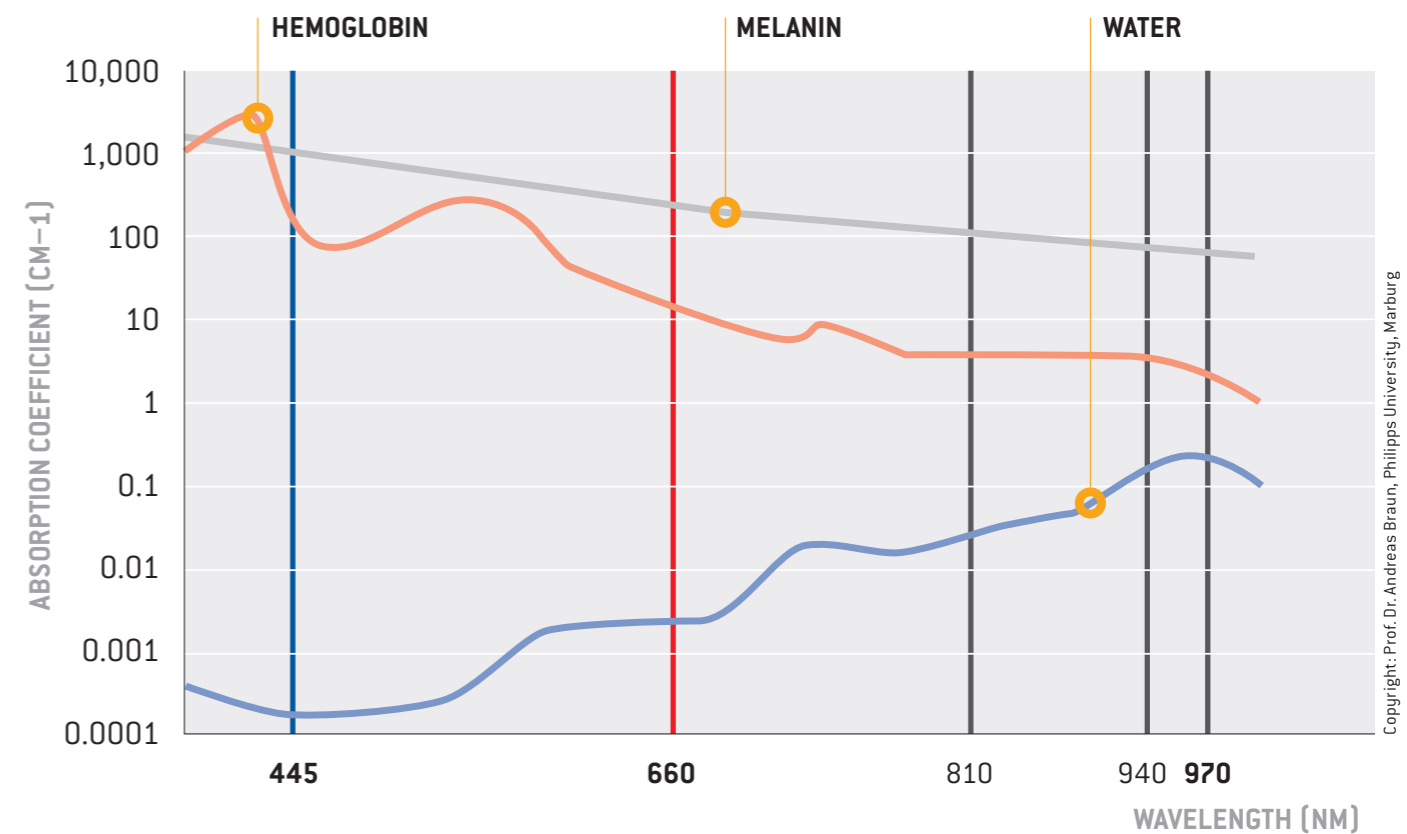
## THE ELECTROMAGNETIC SPECTRUM



DEPENDING ON THE WAVELENGTH AND COMPOSITION OF THE TISSUE, THERE ARE DIFFERENT KINDS OF REACTIONS



THE WAVELENGTHS OF THE THREE LASER DIODES OF THE SIROLASER BLUE:  
BLUE: 445 NM, RED: 660 NM, INFRARED: 970 NM



# SIROLaser Blue – FOR OPTIMAL CUTTING PERFORMANCE.

The SIROLaser has not just one, but several laser diodes for 3 wavelengths. This makes it an all-rounder for dental laser treatment.

With the different blue, red, and infrared diodes, it can be used in all fields of soft tissue treatment (surgery and germ reduction) as well as for soft laser treatment. Another outstanding feature is the blue wavelength with its very high absorption in hemoglobin. At 445 nm, this enables considerably better and gentler cutting, even at lower power.

## Working in non-contact mode

Thanks to the new wavelength, for the first time it is now possible to cut without contact with the tissue using a diode laser. This makes it unnecessary to activate the fiber tip as with previous diode lasers. In addition, this treatment method allows more precise cutting and makes it unnecessary to remove tissue residue from fibers during treatment. The former supposed weakness of conventional diode lasers has thus been remedied with the SIROLaser Blue. The blue diode with 445 nm is ideally suited to all surgical applications and for hemostasis.

## Gentler treatment thanks to lower absorption in water

Due to the fact that absorption of the 445-nm diode is lower in water, correspondingly less heat develops in adjacent tissue. The proven infrared 970-nm diode is used to reduce germ levels in periodontology and endodontics. The additional red 660-nm diode is used for what are known as 'soft laser' applications such as LLLT or biostimulation. The SIROLaser Blue thus covers all possible indications for treatment with a diode laser.

## Power [W] vs. wavelength – what to be aware of

The power [W] of a laser alone does not say anything about its cutting performance. The important thing is the absorption of the laser beam in soft tissue, and this depends on the wavelength. The blue diode with 445 nm can thus achieve a substantially better cutting result at a lower power [W] than infrared laser light (i.e. 970, 940, 810 nm) at a higher power rating. The blue laser light interacts better with hemoglobin, one of the main constituent elements of blood.

# WHAT KINDS OF LASERS ARE THERE?

There are different kinds of lasers. We decided to use diode lasers. Their advantage over other lasers is that they are compact and very versatile. For example, there is a difference between hard and soft lasers. Hard lasers induce a direct reaction with tissue through absorption. They are used in surgery, for germ and bacteria reduction. Soft lasers do not trigger a direct reaction with tissue; they act at the cellular level deep inside tissues. They are used for pain therapy and photodynamic therapy.

	SIROLaser Blue diode laser	Diode laser	Er:YAG laser	Nd:YAG laser	CO <sub>2</sub> laser
Wavelengths	445 nm + 660 nm + 970 nm	970 nm, 940 nm, 810 nm, ...	2,940 nm	1,064 nm	10,600 nm
Model type	Compact model	Compact model	Large model	Large model	Large model
<b>Indications</b>					
Surgery (soft tissue)	■	□	■	–	■
Hemostasis	■	■	–	■	□
Periodontology	■	■	□	■	■
Endodontics	■	■	–	■	–
Bacterial infections (herpes, aphthous ulcers)	■	■	□	■	■
Tooth brightening/bleaching	■	■	–	■	–
Soft laser therapy (LLLT)	■	■*	–	–	–
Hard tissue preparation	–	–	■	–	–

■ = Suitable   □ = Partially suitable   – = Unsuitable

\* Only with the corresponding functionality.

## WHY DIODE LASERS ARE THE BEST SOLUTION

Diode lasers are very versatile. If we compare the applications of the various kinds of lasers, it is quickly apparent that diode lasers cover the widest range of treatments. In addition, the SIROLaser Blue

is one of the smallest, handiest, and lowest priced models on the market and also features outstanding cutting efficiency. You remain flexible and mobile in your practice.



# INFINITE POSSIBILITIES: TREATING WITH THE SIROLaser Blue.

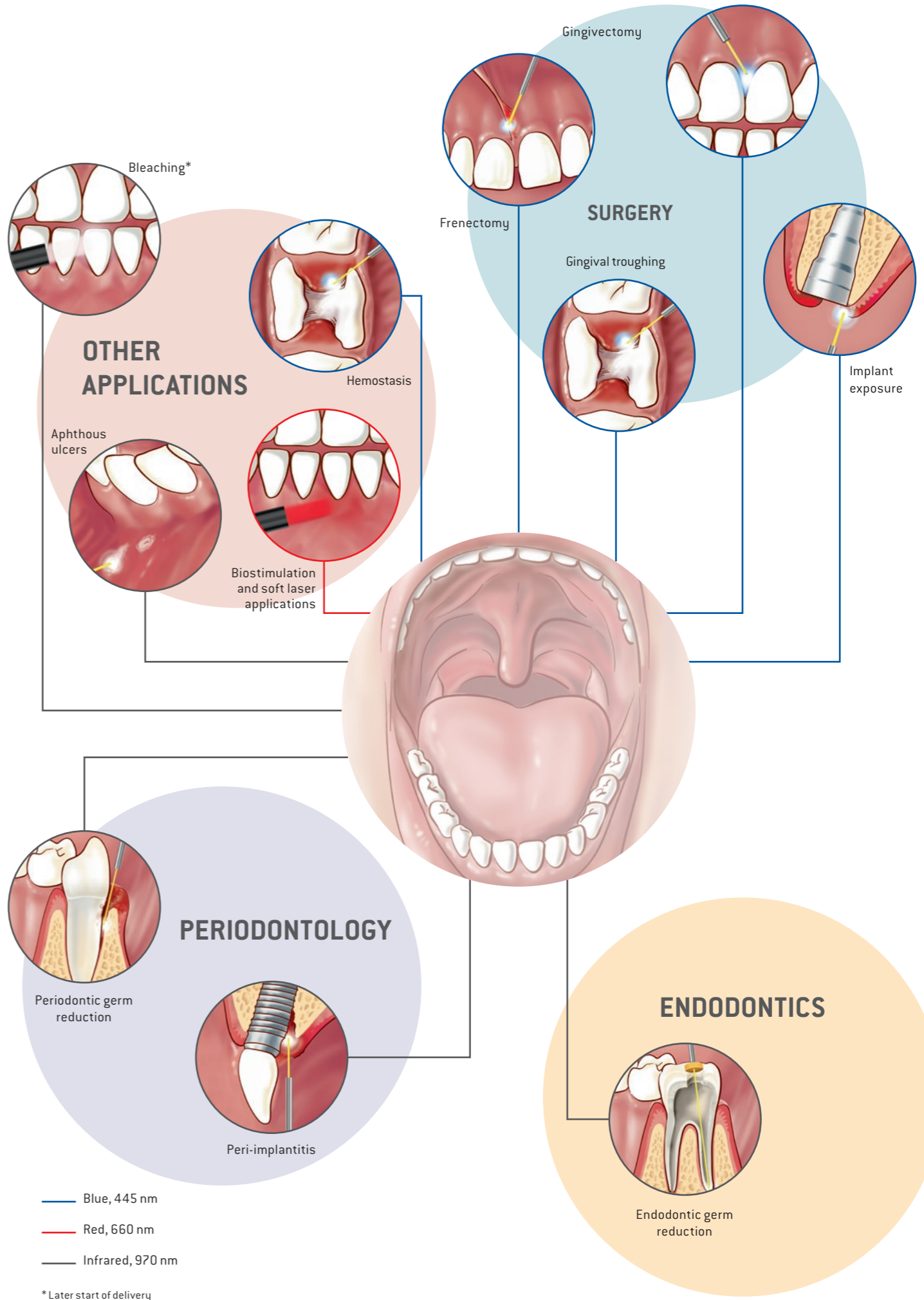
Whether soft tissue surgery, endodontics, periodontology, or implantology – the SIROLaser Blue can be used everywhere. Its three different diodes open up many treatment options. 21 different indications can be treated with the SIROLaser Blue, thus opening up an unprecedented range of treatments. In surgery, you can replace conventional options with the SIROLaser Blue and in periodontology/endodontics, it can be used to supplement conventional treatment.



## APPLICATIONS

- **Implantology** – treatment at and around the implant, for example exposing the implant, decontamination, and making clear preparation margins for impressions and scans.
- **Endodontics** – after preparing and rinsing the root canal, the laser is used in addition to conventional treatment. The laser effectively reduces germs and bacteria in areas a rinsing fluid can never reach.
- **Periodontology** – the diode laser can also be used to treat the gingival pocket in addition to conventional treatment: for example for germ and bacteria reduction in addition to conventional rinsing or for the reduction of granulation at the bottom of the pocket. The laser quickly achieves a good result here as well.
- **Surgery** – the laser is used as an alternative to conventional treatment methods. Benefits in surgery include blood-free incisions and a sterile surgical field. The patient has no postoperative wound pain, needs no antibiotics, and benefits from scar-free healing.
- **CEREC/prosthetics** – sulcus widening and/or hemostasis as preparation for impression taking.
- **Laser bleaching\*** – acceleration of the bleaching process with laser light.
- **Desensitization** – immediate and sustained elimination of hypersensitivity.
- **Therapy laser** – the SIROLaser Blue covers many areas of low-level laser therapy with its integrated soft laser.

\* Later start of delivery



## THE SIROLaser Blue: EVERYONE BENEFITS.

Not only you will love the SIROLaser, your patients will also be impressed very quickly. It makes uncomplicated healing possible, prevents postoperative wound pain, often makes sutures unnecessary, and thus usually ensures scar-free healing of surgical wounds. Another advantage is that it may be possible to dispense with antibiotics after endodontic, periodontic, or surgical treatment. The SIROLaser Blue puts you in a good light as a dentist and enhances the modern image of your practice.

## START NOW AND BECOME A LASER EXPERT.

The SIROLaser Blue is easy to operate and includes useful features. Nevertheless, courses and training seminars are necessary to enable you to complete your treatment safely and successfully. We offer various training events at which you can learn the treatment with the SIROLaser Blue or the principles of working safely with the laser.

**For more information, see [sirona.com/laser](http://sirona.com/laser) or ask us.**



#### YOUR CONTACT PERSON:

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Training consulting  
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# READY TO USE IN JUST A FEW STEPS.

- **Sterile disposable fibers:** Before every treatment simply stick one of these practical EasyTip disposable fibers on the handpiece of the SIRONLaser Blue – and you can then start the treatment directly. All of this without time-consuming assembly steps, without sealing and without sterilization. All fibers are made in Germany.
- **Therapy light guides:** For soft laser applications and bleaching.
- **21 preset programs:** For every treatment, there is already a predefined program. You simply select the desired treatment on the touchscreen and start working. In addition, the Help function assists you to deliver the treatment properly.
- **Integrated battery:** Full mobility and flexibility. The battery charges while you are working.
- **Six favorites can be selected:** There are some forms of treatment that you perform more frequently than others. To avoid the need to scroll through all of the programs, you can conveniently configure your individual home screen.
- **Individual user profiles:** You may have several people in your practice who use the SIRONLaser Blue for treatment. No problem, since up to 6 password-protected user profiles can be adapted individually to suit your needs.
- **Application memory:** The last 50 applications of each user are saved by the device and can conveniently be retrieved from the USB port.
- **Intuitive user interface:** The user interface is designed so intuitively that you will immediately find what you are looking for.
- **Autoclavable handpiece**
- **Two-year warranty**
- **„Delegability“\*:** You can delegate applications in soft laser therapy to your practice assistant.
- **Wireless foot control** (optional)
- **Standby mode**
- **Technical safety checks:** A technical safety check is required by law. For the SIRONLaser Blue, it is required only every two years – for other providers, generally once a year.

\* Depends on country-specific regulations



# FOR THE HIGHEST DEMANDS FOR HYGIENE SAFETY AND ACCESSORIES.

Hygiene is becoming ever more important in dental practices – and is controlled ever more often. With the SIRONLaser Blue we offer you the optimal solution for hygienic treatment with a dental laser: The use of sterile single-use fiber tips „Made in Germany“ dispenses with time-consuming reprocessing. You can start treatment immediately after attaching a sterile glass fiber tip. After treatment, you simply dispose of the tip in a conventional waste container.

Technical data	
Wavelength and operating performance	445 +/- 5 nm / approx. 0.5–3.0 W (CW) 970 +/- 15 nm / approx. 0.5–2.5 W (CW) 660 +/- 10 nm / approx. 0.5–100 mW (CW)
Laser operating mode	Continuous wave, chopped mode
Frequency	1–10,000 Hz
Duty cycle	Variable
Weight	~ 1.3 kg (incl. handpiece and battery)
Dimensions	~ 19.7 cm x 18.2 cm x 18.9 cm

## SCOPE OF SUPPLY

- SIRONLaser Blue incl. stainless steel handpiece with integrated finger switch
- Additional handpiece sleeve for alternating operation
- Demo set of disposable fiber tips\*: 2 x EasyTip 320 µm, 2 x EasyTip 200 µm, 2 x EasyTip Endo
- Combination bending tool
- Fiber cutter
- 3 laser protective goggles (for dentist, dental assistant, and patient)

Accessories	REF.
Stainless steel handpiece sleeve for alternating operation incl. keypad	64 87 784
Keypad finger switch	64 87 800
Set of sterile disposable fiber tips, EasyTip 320 µm (25 pieces)	64 98 062
Set of sterile disposable fiber tips, EasyTip 200 µm (25 pieces)	64 98 484
Set of sterile disposable fiber tips incl. endo stopper, endo EasyTip (25 pieces)	65 35 905
Fiber cutter for disposable fiber tips	60 91 669
Combination bending tool for disposable fiber tips	65 41 556
Optional wireless foot control (incl. battery)	62 56 841
Optical protective cap for handpiece	65 41 507
MultiTip 8 mm, therapy and bleaching light guide (glass rod)	65 41 465
MultiTip 4 mm, therapy light guide (glass rod)	65 41 499
Rechargeable battery	62 56 833
Laser protective goggles for users	65 41 515
Laser protective goggles for patients	65 41 523
Laser protective goggles for spectacle wearers	65 46 407

For more information, see [www.sirona.com/laser](http://www.sirona.com/laser)

\* Non-sterile demo fibers.



Sterile disposable fibers for various applications, e.g. with integrated endo stopper.





# ALWAYS AT THE FOREFRONT OF INNOVATION!

As global innovation leader for dental equipment, we continuously invest in research and thus in the future of modern dentistry. By networking digital technologies with integrated solutions and optimizing the treatment workflow, we create improved treatment results, more comfort and safety for the patient as well as time and cost savings in everyday work. The combination of constant innovative power and globally growing sales and service structures makes Sirona the global market leader trusted by thousands of practices and labs around the world. **Enjoy every day. With Sirona.**



#### **CAD/CAM systems**

From pioneer to new standard. For 30 years we have been developing digital dentistry and creating new possibilities for the future practice and lab.



#### **Imaging systems**

Best image quality with the lowest dose. More than 100 years of developing x-rays for the dental practice make us the number 1 innovation partner.



#### **Treatment centers**

The business card of modern practices. We are striving to create the ideal ergonomic and innovative center. Individually tailored to the well-being and demands of the patient and dentist.



#### **Instruments**

Advantages that speak for themselves. We make sure that we provide the right balance of proven quality, individual ergonomics and innovative technology for user-friendly work.



#### **Hygiene systems**

Competence that gives you safety. When it comes to hygiene in the practice, we do not take any shortcuts.