THE DENTAL SOLUTIONS COMPANY™



SiroLaser Blue Versatile Possibilities

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Procedural Solutions

Preventive Restorative Orthodontics Endodontics Implants Prosthetics

Enabling Technologies

CAD/CAM Imaging Treatment Centers Instruments

Dentsply Sirona

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Diode lasers – Variety for your practice

Dental diode lasers deliver clear benefits over conventional methods of treatment with mostly scar-free wound healing and improved germ reduction. For patients, the use of lasers means less post-operative pain and therefore less need for medication. Not only that, but your practice benefits too, because satisfied patients are the best way to ensure success. The compact SiroLaser Blue is the first dental diode laser to have a blue, an infrared, and a red diode. This enables it to cover more than 20 indications – and therefore versatile possibilities for application in your practice routine.

IMPROVED GERM REDUCTION

LESS POST-OPERATIVE PAIN

MOSTLY SCAR-FREE WOUND HEALING

What kind 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.

| | Diode laser SiroLaser Blue | Diode laser | Er:YAG Laser | Nd:YAG Laser | CO ₂ -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 |
| Indications | | | | | |
| Surgery (soft tissue) | | | | - | |
| Hemostasis | • | | - | | |
| Periodontology | | | | | |
| Endodontics | | | - | | - |
| Bacterial infections (herpes, aphthous ulcers) | | | | | |
| Medical bleaching** | | * | - | | - |
| Soft laser therapy (LLLT) | | * | - | - | - |
| Hard tissue peparation | - | - | | - | □*** |

- Suitable □ Partially suitable Not suitable
- * Only with the corresponding functionality.
- ** e.g. following an endodontic treatment; no predefined treatment program.
- *** 1 Laser-model available in the market.

Why you should choose a diode laser

compare the applications of the various kinds of lasers, it is quickly apparent that diode lasers cover the widest range of treatments. In

Diode lasers are very versatile. If we addition, the SiroLaser Blue is one of the smallest and handiest models diode lasers. You remain flexible on the market and also features sig- and mobile in your practice. nificantly better cutting efficiency by means of its blue wavelength

compared to conventional infrared

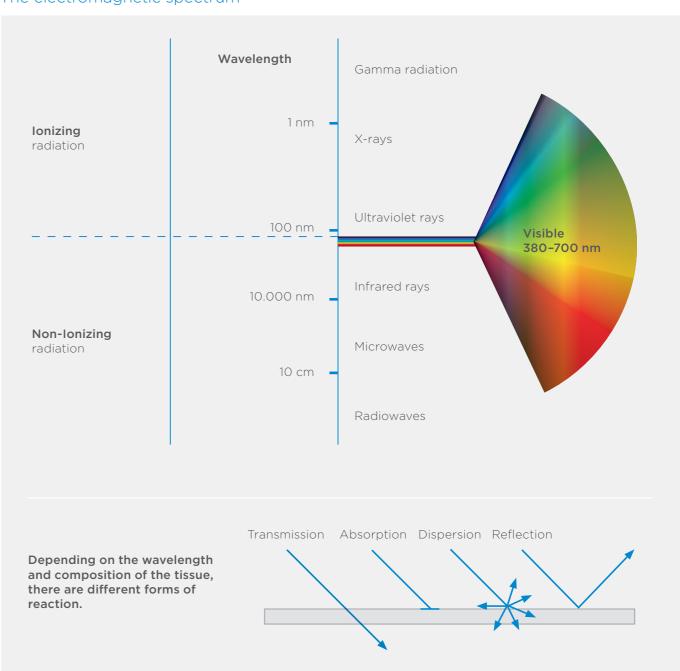
How does a diode laser work?

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 depends on the kind of laser, i.e.

tions are covered. The wavelength on the wavelength, different indica- 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



SiroLaser Blue - For optimal cutting performance

The SiroLaser Blue is the first dental diode laser worldwide with a blue, infrared and red wavelength. This makes it an all-rounder for dental laser treatment.

Which diode for which application?

The blue diode with 445 nm is ideally suited to all surgical applications and for hemostasis.

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.

Depending on the wavelength, the laser beam is absorbed by the tissue better or worse. 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 level.

The blue laser light interacts better with the tissue components hemoglobin or melanin. At 445 nm, this enables considerably better and gentler cutting, even at lower power.

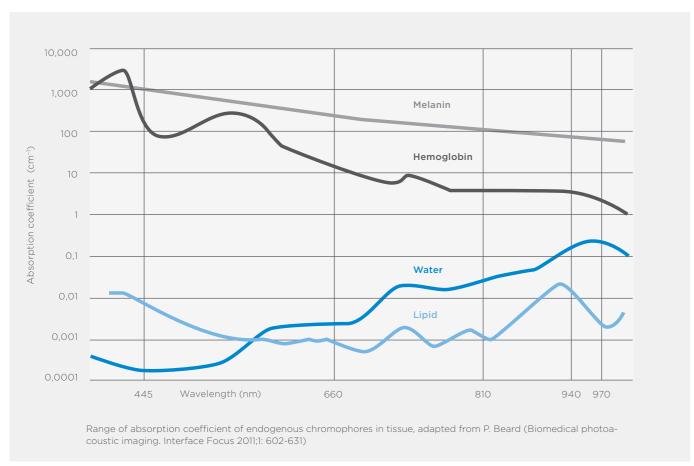
Working in non-contact mode

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

Absorption of the laser radiation by biolodical tissue







Versatile possibilities: Treating with the SiroLaser Blue

Whether soft tissue surgery, endodontics, periodontology, or implantology - the SiroLaser Blue can be used everywhere. Its three different wavelengths open up many treatment options. More than 20 different indications can be treated with the SiroLaser Blue. 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 uncovering the implant, decontamination, and making clear preparation margins for impressions and scans.

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.

CEREC/prosthetics

Sulcus widening and/or hemostasis as preparation for impression taking.

Desensitization

Treatment of hypersensitivities.

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.

Surgery

The laser is used as an alternative to conventional treatment methods. Benefits in surgery include mostly blood-free incisions and a sterile surgical field. The patient has significantly less postoperative wound pain, needs often no antibiotics, and benefits from mostly scar-free healing.

Medical bleaching

e.g. as endodontic follow-up treatment.

Therapy laser

The SiroLaser Blue covers many areas of low-level laser therapy with its integrated soft laser, such as wound healing.

Frenectomy

- Interventions involving low levels of pain and bleeding
- Hemostasis
- No sutures and less scars, accelerated wound healing
- Often no more than surface anesthesia required, less post-operative discomfort







Before

Immediately after

Wound healing after 10 days

With kind permission of: Dr. Peter Kleemann, Grevenmacher (LU)

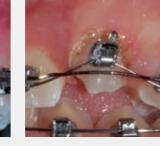
Gingivoplasty

- Easy visualization of clean contours
- Interventions wih low bleeding level
- Less post-operative problems









bracket



Immediately after the exposure

Immediate placement of the

After

With kind permission of: Dr. Peter Kleemann, Grevenmacher (LU)

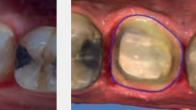
Tissue management

- Retraction cords no longer required
- Clearly defined ,clean' and ,dry' preparation edges
- Avoiding injuries and bleeding of the tissue
- Optimal technique for taking dental impressions (shorter treatment times)



Before







Immediately after

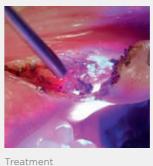
Digital impression with CEREC Finished restoration

With kind permission of: Prof. Dr. Giuseppe Iaria & Dr. Matteo Iaria, Brescia (IT)

Fibroma

- Removal of the mucosal lesion with no contact between fiber and tissue
- Direct coagulation without sutures
- Non-irritated wound area with no secondary bleeding
- Reduced scar formation









With kind permission of: Prof. Dr. Andreas Braun, Marburg (GER)

Endodontic germ

- Laser beams penetrate much deeper into dentinal tubules than conventional rinses
- Better long-term prognosis for endodontic treatments







Treatment

With kind permission of: Jesko Gärtner, Bochum (GER)

All indications at a glance

| Surgery | | Endodontics | Periodontology | Other |
|---------------|---------------------|---------------------------|----------------------------|--------------------|
| Abscess | Implant uncovery | Endodontic germ reduction | Periodontic germ reduction | Aphthous ulcers |
| Epulis | Incisions/excisions | Gangrene germ reduction | Peri-implantitis | Desensitization |
| Fibroma | Operculectomy | Pulpotomy | etc. | Hemostatis |
| Frenectomy | Gingival troughing | etc. | | Herpes |
| Gingivectomy | etc. | | | Medical bleaching* |
| Gingivoplasty | | | | Soft laser therapy |

 $^{^{*}}$ e.g. following an endodontic treatment; no predefined treatment program

One laser for every demand

The SiroLaser Blue delights users and patients alike. Lasers are modern and have a good image – hence the SiroLaser Blue puts your practice in a good light, too. Diode lasers have found their way into many medical and cosmetic sectors and they are now becoming much more widespread in dental medicine as well.





"Finally no more sutures."

Dr. Isabelle Nguyen, France

"The SiroLaser Blue reduces germs very effectively."

Dr. Matteo Iaria, Italy

"I treat a lot of children in my practice – and they think it's great not only because they don't need sutures and have less pain, they also find the laser fascinating."

"I always use the laser for root canal treatments and since then I have had much fewer follow-up treatments because of recurrent inflammation. My patients find that great of course!"



The SiroLaser Blue: Everyone benefits

Not only you will love the SiroLaser Blue, your patients will also be impressed very quickly.

It makes uncomplicated healing possible, reduces post-operative wound pain, often makes sutures unnecessary, and thus usually mostly 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.

To stay informed about the latest information: dentsplysirona.com/laser-platform

The highlight of our laser platform is the forum. Here you can also discuss any questions that arise when using your laser or regarding laser therapy in general with other users and specialists. In addition you will find clinical articles, photos and films, case studies and news about future events.

Dental Academy

The Dentsply Sirona Dental Academy in Bensheim, Germany, offers face-to-face and online training courses relating to important issues in high-tech dentistry. These courses are targeted at sales personnel and service technicians in the dental equipment trade, as well as at dentists and dental technicians. These courses attract an average of more than 6000 attendants each year. Around 40 per cent of the attendees come from outside Germany.



Your contact person: Nicole Bohlken Training consulting academy@sirona.com

Ready to use in just a few steps

The SiroLaser Blue is impressive because of its easy operation and useful features. You just concentrate on your treatment.

| Characteristics/Benefits | |
|---|--|
| Sterile disposable fibers (EasyTips) | Before every treatment simply stick one of the practical EasyTips on the handpiece of the SiroLaser Blue - and you can then start the treatment directly. All of this without time-consuming assembly steps, without wrapping and without sterilization. All fibers are made in Germany. |
| Therapy light guides (MultiTips) | For soft laser applications and medical bleaching (e.g. as endodontic follow-up treatment). |
| More than 20 preset programs | For every treatment, there is already a preset program. You simply select the desired treatment on the touchscreen and start working. In addition, the Help function assists you to administer the treatment properly. |
| Six favorties can be selected | There are some treatment types 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. |
| Application memory | The last 50 applications of each user are saved by the device and can conveniently be retrieved from the USB port. |
| Individual user profiles | You may have several people in your practice who use the SiroLaser Blue for treatment. No problem, since up to 6 password-protected user profiles can be adapted individually to suit your needs. |
| Integrated battery | Full mobility and flexibility. The battery charges while you are working. |
| Intuitive user interface | The user interface is designed so intuitively that you will immediately find what you are looking for. |
| Handpiece with integrated finger switch | The integrated finger switch makes an additional foot pedal obsolete. Autoclavable stainless steel handpiece sleeve. |
| Delegatability* | You can delegate applications in soft laser therapy to your practice assistant. |
| Flexible laser activation | Integrated finger switch at the handpiece or optional wireless foot control. |
| Quickly ready for use | Standby mode for immediate availabilty without switching off the device. |
| Technical safety checks* | A technical safety check is required by law. For the SiroLaser Blue, it is required only every two years – for other providers, generally once a year. |
| Warranty | Two years. |

^{*} Depends on country-specific regulations.

Please note the following guidelines:





Scope of delivery

SiroLaser Blue incl. stainless steel handpiece with integrated finger switch

Battery pack (already mounted)

Additional handpiece sleeve for alternating operation

Demo set of disposable, non-sterile fiber tips: 2x EasyTip 320 μm, 2x EasyTip Endo, 2x EasyTip 200 μm

Combined bending tool

Fibercutter

3 laser safety goggles (for dentist, dental assistant and patient)



therapy light guides for various applications



Sterile disposable fibers (Easy-Tips)



Laser safety goggles for users Laser safety goggles for patient



18 I 19

| Accessories | Ref. |
|---|-----------|
| Handpiece sleeve with keypad | 64 87 784 |
| EasyTip 320 μm (25 pieces) | 64 98 062 |
| EasyTip 200 μm (25 pieces) | 64 98 484 |
| EasyTip 200 μm Endo (25 pieces) | 65 35 905 |
| MultiTip 8 mm, therapy light guide | 65 41 465 |
| MultiTip 4 mm, therapy light guide | 65 41 499 |
| Optic protective cap for handpiece (5 pieces) | 65 79 580 |
| Fibercutter | 60 91 669 |
| EasyBend - Bending tool (2 pieces) | 66 18 180 |
| Wireless foot control | 62 56 841 |
| Laser safety goggles for users SiroLaser Blue | 65 41 515 |
| Laser safety goggles for patients SiroLaser Blue | 65 41 523 |
| Laser safety goggles for eyeglasses wearers SiroLaser Blue | 65 46 407 |
| Laser loupe glasses flip-up with exchangable lenses (magnification: 3,0x; working distance: 400 mm) | 66 25 177 |
| Laser loupe glasses flip-up with exchangable lenses (magnification: 3,0x; working distance: 350 mm) | 66 25 169 |

SiroLaser Blue Ref.-No. for the following countries: Germany, Austria 65 40 491; Switzerland 65 40 632; Italy 65 40 657; Netherlands, Belgium 65 40 509; France 65 40 640; UK 65 40 624; Spain 65 40 608; Portugal 65 40 665; Denmark 65 40 616; Finnland, Norway, Sweden 65 40 590. Australia 65 73 401, ROW 65 59 111, language extension 65 40 673. Further countries on request.

| Technical data | | |
|--------------------------------------|--|--|
| Wavelength and operating performance | 445 nm +/-5 nm / 0.2 - 3.0 W (CW) 660 nm +/-5 nm / 25, 50 and 100 mW (CW) 970 nm -10/+15 nm / 0.2 - 2.0 W (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 | |