

# **Optiprint**<sup>®</sup> **premium resins**

### The perfect choice for your 3D printer

Where you as a user always expect new materials for the growing number of applications for printing technology, dentona supplies you with premium resins from their **optiprint** series that you can use for all device classes.

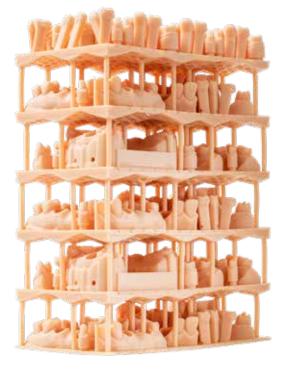
Convince yourself of the latest **optiprint** innovations: The clear-flexible 3D printing resin for bite splints; the translucent 3D printing resin for crowns and bridges and a premium resin for lifelike denture bases.





The opaque, light and moisture stable **optiprint** model resin was especially designed for the model production. The version in golden brown color offers the optimal visibility of the margin line and combined with the abrasion resistance of the component it grants a plaster-like model processing. The range has been expanded to include the environmentally friendly and more economic additional packaging unit in the form of a 10 kg canister.







The 3D printer now enables us to produce a physical model from the impression data ourselves, that meets all of our requirements: Highest detail reproduction and dimensional stability. We have been working with the 3Shape software for years and could continue the usual processes without any changes when using the 3D printer. The user is not committed to one system with a 3D printer from dentona. The slicing software supplied with the printer reads every STL file enabling a smooth integration of the additive manufacturing in the process.

Alexander von Fehrentheil, vFM Dentallabor GmbH, Hamburg

Product	Description	Item No.
optiprint model (385-405 nm)	NEW ivory 10 kg / 9100 ml	48048
optiprint model (385-405 nm)	ivory 1 kg / 910 ml	48051
optiprint model (385-405 nm)	ivory 500 g / 455 ml	48053
optiprint model (385-405 nm)	NEW golden brown 10 kg / 9100 ml	48049
optiprint model (385-405 nm)	golden brown 1 kg / 910 ml	48050
optiprint model (385-405 nm)	golden brown 500 g / 455 ml	48052
optiprint model (385-405 nm)	NEW grey 10 kg / 9100 ml	48214
optiprint model (385-405 nm)	grey 1 kg / 910 ml	48212
optiprint model (385-405 nm)	grey 500 g / 455 ml	48213





**optiprint** sprint is the first fast model resin with plaster look. Due to its lower viscosity the print speed increases.

### > Order information

Product	Description	Item No.
optiprint sprint (385-405 nm)	golden brown 1 kg / 910 ml	48370



**optiprint** express is the first fast model resin optimized for 405 nm. The material shortens the printing time thanks to shorter exposure times.



Product	Description	Item No.
optiprint express (405 nm)	golden brown 1 kg / 910 ml	48380



This is a special material variant with a high hardness for orthodontic as well as aligner models. The special resin is matched to the requirements of the thermoforming technology on the model and guarantees the technician a high level of process reliability. For example **optiprint** model align is especially suitable for the model production as part of the in-house production of aligners.





We get a precise model of the oral situation from the 3D printer as basis e.g. for the production of splints for therapeutic use or dentures.

Dr. Clemens Fricke, Orthodontist, Dortmund

#### Special features

- · Surface quality like a plaster model
- · Matched to the thermoforming technology
- · Ideal for in-house aligner production



Product	Description	Item No.
optiprint model align (385-405 nm)	light yellow 1 kg / 910 ml	48060

### > Flexible gingival mask



The special resin **optiprint** gingiva 2.0 has been developed for the production of flexible gingival masks with the 3D printing technology. The colour of **optiprint** gingiva 2.0 is very similar to the natural gingiva and simplifies the creation of aesthetic dentures for the dental technician. **optiprint** gingiva 2.0 is the ideal complement to the special **optiprint** model resin.



#### Special features

- · Functional upgrade of the model
- · Natural reproduction of the gingiva
- $\cdot$  Flexible and tear-resistant



Product	Description	Item No.
optiprint gingiva 2.0	gingiva 1 kg / 910 ml	48072
optiprint gingiva 2.0	gingiva 500 g / 455 ml	48073





The 3D printing resin I-B-T is specially designed for the additive manufacturing of transfer templates for bracket positioning. The transfer templates can be very easily designed with a CAD software. The practitioner benefits from the increased accuracy, safety and speed when using the brackets. The material is very flexible and deliberately tearable for the easy removal of the template.



#### Special features

- · Comfortable and safe
- · Flexible and deliberately tearable
- · Medical device class I



Medical device class

Product	Description	Item No.
optiprint I-B-T 385	clear transparent 1 kg / 910 ml	48100





**optiprint** clara is the clear-flexible 3D printing resin for stable, high-precision bite splints, which, due to their temperature-dependent features, are also extremely comfortable to wear. **optiprint** clara impresses with its indication-based firmness and high break resistance. The great properties of the splint also allow an optimally adjusted flexibility in the patient's mouth, so that he finds it very comfortable to wear the splint. The material is designed to avoid any risk of spalling or broken splints. **optiprint** clara is resistant to oral conditions as well as tasteless and fulfills all requirements of the MDR (Medical Device Regulation) within the corresponding overall process.





The digital production of our splints is done by the same employee that previously fabricated the splints conventionally. She didn't have any CAD / CAM experience and yet, the changeover only took one day.

MDT Oliver Schulz, Solident GmbH, Schwerte

#### Special features

- $\cdot$  No risk of broken splints
- · Clear-flexible, invisible
- · Tasteless



#### Medical device class lla

Product	Description	Item No.
optiprint clara (385-405 nm)	clear transparent 1 kg / 910 ml	48220
optiprint clara (385-405 nm)	clear transparent 500 g / 455 ml	48221





**optiprint** guide is a clear transparent, light-curing premium resin for the production of implant drill guides. The material is characterized by its exceptional UV stability in combination with reliable bending / tensile strength. **optiprint** guide grants high process robustness and meets the highest demands on handling without being brittle.

The components made from **optiprint** guide can be sterilized by the help of steam. They remain dimensionally stable and almost free of discoloration. The resin has a low viscosity.



### Special features

- · Clear-transparent
- · Very high UV stability
- $\cdot$  Proven process reliability
- · Autoclavable



Product	Description	Item No.
optiprint guide 385	clear transparent 1 kg / 910 ml	48000
optiprint guide 385	clear transparent 500 g / 455 ml	48001
optiprint guide 405	clear transparent 1 kg / 910 ml	48010
optiprint guide 405	clear transparent 500 g / 455 ml	48011

### Teeth, crowns and bridges



**optiprint** lumina is the translucent 3D printing resin for temporary crowns and bridges. As a highly filled 3D printing resin, **optiprint** lumina combines excellent edge adjustment with strength and aesthetics. Thanks to the available tooth colors (VITA tooth color scale) high aesthetic demands are met without additional reworking. In addition the restorations can be easily individualized with composite if necessary. Editing and polishing are extremely easy. A sedimentation of the material in the bottle or in the material tray is excluded.





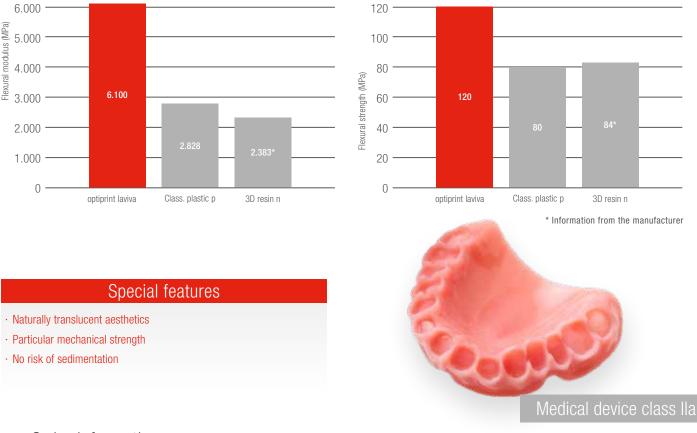
Product	Description	Item No.
optiprint lumina (385-405 nm)	Vita A1-D4, hollywood white 1 kg / 910 ml	see webshop
optiprint lumina (385-405 nm)	Vita A1-D4, hollywood white 500 g / 455 ml	see webshop





**optiprint** laviva is the new 3D printing resin for lifelike dentures. Thanks to a natural translucent coloring and the high mechanical strength dentures can be printed that delight every patient with their appearance and stability. If necessary the gingival areas can be characterized by the help of composite or plastic and a little more naturalness can be worked out. The printed denture base is torsion-resistant and also safely withstands high loads. Any sedimentation of the material in the bottle or in the material tray is excluded.





Product	Description	Item No.
optiprint laviva (385-405 nm)	light-pink 1 kg / 910 ml	48230
optiprint laviva (385-405 nm)	light-pink 500 g / 455 ml	48231
optiprint laviva (385-405 nm)	dark-pink 1 kg / 910 ml	48232
optiprint laviva (385-405 nm)	dark-pink 500 g / 455 ml	48233
optiprint laviva (385-405 nm)	red-brown 1 kg / 910 ml	48234
optiprint laviva (385-405 nm)	red-brown 500 g / 455 ml	48235

### > Individual impression trays



**optiprint** tray has been consequently developed and optimized for the additive manufacturing of individual impression trays from the point of view of mechanics, polymerization behavior and optics. Due to the high translucency of the 3D printed part, the practitioner always has control during the impression process and the removal of the tray out of the mouth.



#### Special features

- · Coordinated curing depth for high build speeds
- · Dimensionally stable
- · High translucency for maximum control



Medical device class I

Product	Description	Item No.
optiprint tray 385	lightblue 1 kg / 910 ml	48021
optiprint tray 385	lightblue 500 g / 455 ml	48025
optiprint tray 385	green 1 kg / 910 ml	48020
optiprint tray 385	pink 1 kg / 910 ml	48023
optiprint tray 385	orange 1 kg / 910 ml	48022
optiprint tray (385 - 405 nm)	viper green 1 kg / 910 ml	48352
optiprint tray (385 - 405 nm)	NEW ocean blue 1 kg / 910 ml	48354
optiprint tray (385 - 405 nm)	magic black 1 kg / 910 ml	48350
optiprint tray HR (405 nm)	blue 1 kg / 910 ml	48032
optiprint tray HR (405 nm)	blue 500 g / 455 ml	48033

### > Model casting, crowns and bridges



The dental 3D printing resin **optiprint** cast nf takes the CAD / Cast process to a new level. This residue-free burn out premium resin impresses with its precision, smooth surfaces and distortion-free cast objects - the basis for high-precision model cast frameworks and metallic crowns and bridges. Very delicate support structures guarantee distortion-free cast parts. Smooth surfaces simplify the manual work steps after casting (e.g. polishing). Even the finest surface structures are reproduced true to detail.

### Special features

- · Residue-free burn out
- $\cdot$  Particularly suitable for the speed casting process
- $\cdot$  Smooth, waxy finish
- $\cdot$  Enables finest support structures and distortion-free frameworks





Product	Description	Item No.
optiprint cast nf (385-405 nm)	red 1 kg / 910 ml	48400
optiprint cast nf (385-405 nm)	red 500 g / 455 ml	48401

### > Quality assurance in the process chain



This proven 3D printing resin was specially developed for the digital documentation of the manufacturing process using 3D printing for quality management. Without further surface conditioning the part printed with **optiprint** match can be rescanned to match the data with the initial file of the work.

The user thus retains control over the accuracy of his digital manufacturing process and valuable support in investigating the cause in the case of deviations. **optiprint** match increases the quality assurance within the production. The eye-friendly, soft matt brown color of **optiprint** match provides a homogeneous surface image of the printed part.



### Special features

- $\cdot\,$  Ideal for documenting the process quality
- $\cdot\,$  Good scannability without surface conditioning
- · Homogeneous component surfaces



Product	Description	Item No.
optiprint match (385 - 405 nm)	light brown 1 kg / 910 ml	48120

### Controlled light curing and cleaning

## Otoflash G171 Flash unit with protective gas connection

The very powerful universal light cure unit is equipped with a shielding gas connection avoiding the oxygen inhibition on the surfaces.

The user receives adhesive-free components after the printing process, the removal of the inhibition layer is no longer applicable. To ensure biocompatibility and optimal post curing, dentona provides individual application recommendations for their optiprint premium resins and the device.

Biocompatibility and MDR compliance of medical devices are only ensured at professional standards (light curing by the help of protective gas) in an approved device.

Size of the light curing space Number of light sources Nominal voltage Nominal frequency Power consumption Spectral distribution

**Dissipated** power Flash rate Digital timer Dimensions Weight

120 x 120 x 50 mm 2 flash lamps of 100 W each 100, 117, 230 Volt AC, switchable 50 / 60 Hz 250 W 280-700 nm, maximum between 400 and 500 nm 200 W 10 flashes per second adjustable from 1 to 9,999 flashes 310 x 310 x 140 mm appr. 7 kg

### rapidshape cure & wash

The RS wash is a fully automatic cleaning unit that safely and easily cleans all 3D printed parts within approx. 6-8 minutes. Thanks to the connection to the RS printer, the appropriate cleaning program is selected automatically. The result is a process-reliable, simple and environmentally friendly two-stage pre- and final cleaning (patent pending). The RS cure light curing unit with its powerful LEDs is an important process component ensuring the requirements for the production of medical devices. With the integrated vacuum technology, it ensures 360° homogeneous curing of the 3D printed parts.

	rapiosnape
Dimensions	230 x 270 x 450
UV chamber	130 x 75 x 60 i
Cleaning chamber	-
Cleaning cartridges	-

. . . . cure 0 mm mm

rapidshape wash 230 x 270 x 380 mm

130 x 75 x 60 mm 800 ml





**Technical specifications** 

