

### **IMPRIMO®** System

Everything for 3D Printing – Consumables, Devices, Service.



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# **IMPRIMO<sup>®</sup> System** – Universal, validated and reliable.

Currently, the development of a validated process for medical 3D printing and the subsequent post-processing is a crucial issue in the utilization of digital technologies in the dental field.

We, too, have taken our cue from this trend and developed a complete system for you:

The IMPRIMO<sup>®</sup> system allows for a coordinated process chain from 3D printing to cleaning and light curing.

Our extensive material portfolio is tailored to the needs of laboratories and practices and of course, we support you individually with set up and use of the devices and the

#### peripheral equipment.

The IMPRIMO<sup>®</sup> system includes the DLP printer ASIGA MAX<sup>TM</sup> as well as the LCD printer Asiga MAX<sup>TM</sup> LCD. Asiga PRO, a high-end model in different versions, meets the demands of volume users.

The matching cleaning unit IMPRIMO<sup>®</sup> Clean and the light oven IMPRIMO<sup>®</sup> Cure complement our equipment range. The IMPRI-MO<sup>®</sup> system already complies with the requirements of the new European Medical Device Regulation (MDR) for validated 3D printing processes.

### CONSUMABLES

3D PRINTING

### CLEANING

Together with our subsidiary pro3dure, SCHEU DENTAL offers a wide range of resins for different printing systems. Whether you are a beginner, an advanced user or a professional – our IMPRIMO<sup>®</sup> system with its tailored range of consumables, devices and accessories will meet all your demands in medical 3D printing. Service is important to us, so please get in touch regarding installation and support. We are happy to assist!



### Our desktop devices

Our aim is to offer a complete and coherent range of solutions to our customers, driven by service and usability. It is with pride that we are able to state that our devices and the associated peripherals around medical 3d printing are prepared to meet all the requirements in practice and laboratory.

Our debutant, the entry-level model Asiga MAX<sup>™</sup> LCD, is designed mainly fo printing of working models, whereas Asiga MAX<sup>™</sup>, the all-rounder in desktop size, features a comprehensive portfolio of consumables.

The features of all our 3D printers at a glance:

- // wireless network
- I interactive operation via touch screen
- // web-based control and monitoring
- ✓ SPS<sup>™</sup>: Smart-Positioning-System Technology for precise print results
- In anti-aliasing: increased precision and superior surface quality thanks to pixel accurate dosage of the energy input
- // tray with RFID chip
- commissioning and training by the SCHEU-DENTAL support team



#### Asiga MAX<sup>™</sup> LCD

Pixel size	47 µm
Build volume	121 x 68 x 76 mm
Build height	76 mm
LED UV-WQHD Display	$\checkmark$
Light sensor for consistent projector performance	$\checkmark$
405 nm LCD technology	$\checkmark$
Compact desktop solution	$\checkmark$

Up to 7 dental arches can be arranged on the platform (at a hanging position). Printing time: approx. 200 minutes

### Asiga MAX<sup>™</sup>

Pixel size	62 µm
Build volume	119 x 67 x 75 mm
Build height	75 mm
LED UV-HD projector	1
Light sensor for consistent projector performance	1
385 nm DLP technology	1
Compact desktop solution	1
Extensive and verified material portfolio	1

Up to 7 dental arches can be arranged on the platform (at a hanging position). Printing time: approx. 80 minutes



### Our floor-standing devices

Asiga PRO, the specialist for volume users, is available in different versions available with HD or 4K projector.

The features of all our 3D printers at a glance:

- // wireless network
- // interactive operation via touch screen
- // web-based control and monitoring
- ✓ SPS™: Smart-Positioning-System Technology for precise print results
- anti-aliasing: increased accuracy and superior surface quality due to pixel accurate dosage of the energy input
- / tray with RFID chip
- commissioning and training by the SCHEU-DENTAL support team





#### Asiga PRO HD

	HD65	HD80	HD100
Pixel size	65 µm	80 µm	100 µm
Build volume mm	125 x 70 x 200	153,6 x 86,4 x 200	192 x 108 x 200
Build height	200 mm	200 mm	200 mm
LED UV-HD projector	1	1	$\checkmark$
Light sensor for consistent projector performance	$\checkmark$	$\checkmark$	$\checkmark$
385 nm DLP technology	1	$\checkmark$	$\checkmark$
Extensive and verified material portfolio	1	1	$\checkmark$

Up to 21 dental arches can be arranged on the platform (at a hanging position). Printing time: approx. 90 minutes





### Asiga PRO 4K

C

	4K65	4K80	
Pixel size	65 µm	80 µm	
Build volume mm	176,5 x 99 x 200	217 x 122 x 200	
Build height	200 mm	200 mm	
LED UV-HD projector	$\checkmark$	$\checkmark$	
Light sensor for consistent projector performance	$\checkmark$	$\checkmark$	
385 nm DLP technology	$\checkmark$	$\checkmark$	
Extensive and verified material portfolio	$\checkmark$	✓	

Up to 21 dental arches can be arranged on the platform (at a hanging position). Printing time: approx. 90 minutes

### Technical differences:

All 3D printers in our range have an LED-UV light source. Physically, light is electromagnetic radiation. Visible light is within the wavelength range between 380 nm and 780 nm. The adjoining areas are those of UV (ultra-violet) light and IR (infrared) light. Light energy is utilizable in manifold ways. One example are radiation-curing systems using the UV light.

In addition to the light source, the technology of imaging plays an important role. We offer 3D printers with LCD and DLP technology.

#### DLP technology

DLP stands for "Digital Light Processing". In the DLP technology, the light from the light source is sent by a DMD (Digital Micromirroring Device) chip. On the surface of the chip are several hundred thousand micro-mirrors corresponding to the pixels in the image that is to be displayed. The image is created by individual rotation of the mirrors to an on or off state, reflecting the light from the projector bulb into the lens (bright pixels) or directing it elsewhere (dark pixels). This happens up to 5000 times per second.

### LCD technology

LCD stands for "Liquid Crystal Display". 3D printing technology using LCD technology is based on the use of LCD displays as pixel matrix. Under this method, UV LEDs are used as backlight, usually in the range between 395 nm and 405 nm (UVA). Under electrical voltage, the liquid crystals in the LCD display change the polarization direction and thus influence the transmittance of polarized light. Figuratively speaking, the pixels are switched on and off as required.

#### System Requirements

Processor	
Space	
Graphics	
Mouse	
Network	
Free hard drive space	

2.4 GHz
4 GB
256 MB, min. OpenGL 2,0
3-button mouse with scroll wheel
Ethernet, WiFi
1 GB

### Asiga Composer – The way to additive manufacturing.

Increase value creation in your lab or practice and benefit from a manufacturing solution that is independent, yet completely implemented in the digital work flow.

The Asiga Composer software being part of the delivery is the link between your CAD software and an Asiga 3D printer for the operating systems Linux, Mac or Windows. You can generate dental objects using all common CAD programs. Printable files (STL, SLC, STM) can be easily imported. The program prepares the imported data independently for the following manufacturing process. Other features included in the software allow for automatic support

generation or utilization of the complete building height and indication

of the calculated building time (multi-stacking technique). The object volume serving as basis for the calculation of the cast weight can be indicated as well. The printing process can run unattended. Upon completion of the process, the building platform goes back to the starting position and the printer switches off if required.

See for yourself: Asiga Composer is easy to use and allows you to control the printing process at any time.

# The software features at a glance:

- / Calculation of building time
- Remote function
- Measuring function
- / Queue for several print jobs
- Automated support generation
- // Individualization of supports
- / Dynamic nesting



### Desktop devices:

	Asiga MAX™ LCD	Asiga MAX™	
Article no.	6530	6501	
mage technology	LCD	DLP	
Power	12 V/120 W	12 V/120 W	
/oltage source	100-240 V	100-240 V	
light source	UV-LED	UV-LED	
Vavelength	405 nm	385 nm	
Dimensions (W x D x H)	260 x 380 x 370 mm	260 x 380 x 370 mm	
Build volume	121 x 68 x 76 mm	119 x 67 x 75 mm	
Weight	16.5 kg	16.5 kg	
Pixel size	47 µm	62 µm	
_ayer thickness	25-100 µm (continuous adjustme	nt with accuracy of 1 µm)	
File inputs / data formats	STL, SLC, STM	STL, SLC, STM	

### Floor-standing devices:

Article no.       6535       6536       6537       6538       6539         Image technology       DLP		Asiga PRO HD65	Asiga PRO HD80	Asiga PRO HD100	Asiga PRO 4K65	Asiga PRO 4K80
Image technology         DLP	Article no.	6535	6536	6537	6538	6539
Power         12 V/120 W         100-240 V         100 V/LED         100 V/LED         100 V/LED         101 V/LE	mage technology	DLP	DLP	DLP	DLP	DLP
Voltage source         100-240 V         100-240 V         100-240 V         100-240 V         100-240 V           Light source         UV-LED         UV-LED         UV-LED         UV-LED         UV-LED         UV-LED         UV-LED         UV-LED         385 nm         387 nm         317 nm         317 nm<	Power	12 V/120 W	12 V/120 W	12 V/120 W	12 V/120 W	12 V/120 W
Light source       UV-LED       UV-LED       UV-LED       UV-LED       UV-LED       UV-LED         Navelength       385 nm       465 x 420 x 1,370       217 x 122 x 2       2       2       2       75 kg       80 µm       80 µm <td< td=""><td>/oltage source</td><td>100-240 V</td><td>100-240 V</td><td>100-240 V</td><td>100-240 V</td><td>100-240 V</td></td<>	/oltage source	100-240 V	100-240 V	100-240 V	100-240 V	100-240 V
Wavelength         385 nm         465 x 420 x 1,370         217 x 122 x 2         217 x 122 x 2	Light source	UV-LED	UV-LED	UV-LED	UV-LED	UV-LED
Dimensions (W x D x H)       465 x 420 x 1,370       217 x 122 x 2         Build volume       75 kg       75 kg       75 kg       75 kg       75 kg       75 kg         Pixel size       65 µm       80 µm       100 µm       65 µm       80 µm       80 µm       80 µm       80 µm       80 µm       5100 µm (continuous adjustment with accuracy of 1 µm)       80 µm       80 µm </td <td>Navelength</td> <td>385 nm</td> <td>385 nm</td> <td>385 nm</td> <td>385 nm</td> <td>385 nm</td>	Navelength	385 nm	385 nm	385 nm	385 nm	385 nm
Build volume         125 x 70 x 200         153.6 x 86,4 x 200         192 x 108 x 200         176.5 x 99 x 200         217 x 122 x 2           Weight         75 kg         75 kg         75 kg         75 kg         75 kg         75 kg           Pixel size         65 µm         80 µm         100 µm         65 µm         80 µm           Layer thickness         25-100 µm (continuous adjustment with accuracy of 1 µm)         STL, SLC, STM         STL, SLC, STM	Dimensions (W x D x H)	465 x 420 x 1,370	465 x 420 x 1,370	465 x 420 x 1,370	465 x 420 x 1,370	465 x 420 x 1,370
Weight75 kg75 kg75 kg75 kgPixel size65 µm80 µm100 µm65 µm80 µmLayer thickness25-100 µm (continuous adjustment with accuracy of 1 µm)File inputs / data formatsSTL, SLC, STMSTL, SLC, STMSTL, SLC, STMSTL, SLC, STM	Build volume	125 x 70 x 200	153.6 x 86,4 x 200	192 x 108 x 200	176.5 x 99 x 200	217 x 122 x 200
Pixel size65 μm80 μm100 μm65 μm80 μmLayer thickness25-100 μm (continuous adjustment with accuracy of 1 μm)File inputs / data formatsSTL, SLC, STMSTL, SLC, STMSTL, SLC, STMSTL, SLC, STM	Weight	75 kg	75 kg	75 kg	75 kg	75 kg
Layer thickness25-100 μm (continuous adjustment with accuracy of 1 μm)File inputs / data formatsSTL, SLC, STMSTL, SLC, STMSTL, SLC, STMSTL, SLC, STMSTL, SLC, STMSTL, SLC, STMSTL, SLC, STM	Pixel size	65 µm	80 µm	100 µm	65 µm	80 µm
File inputs / data formats STL, SLC, STM	Layer thickness		25-100 µm (cor	ntinuous adjustment wit	h accuracy of 1 µm)	
	File inputs / data formats	STL, SLC, STM	STL, SLC, STM	STL, SLC, STM	STL, SLC, STM	STL, SLC, STM

### Satisfied Users

"Asiga MAX<sup>™</sup> is not just a machine, it's a superior revolutionary 3D printer by all means. Tough, reliable, accurate, smart and compact; it doesn't end here! Behind Asiga MAX<sup>™</sup> is a very knowledgeable and friendly online support team from whom I have learned extensively.

It's a pleasure working with you!"

Antoine Bassil, dental technician and lab owner, Straight Arch Orthodontic Laboratory, Beirut, Lebanon

"We have been printing more than 30,000 dental models with the IMPRIMO<sup>®</sup> system since 2015 in our lab, enabling us to enhance the smiles of about 5,000 patients with CA<sup>®</sup> CLEAR ALIGNER splints. The printing procedure with Asiga MAX<sup>™</sup> is precise and extremely reliable and has, together with the trustable 24/7 technical support, guaranteed our confidence and the satisfaction of our doctors and their customers."

Rolf Faltin, DDS, MSc, PhD., CTO, CA® CLEAR ALIGNER do Brasil

"Thanks to the ease of use and very precise results your 3D printer is an important part of our digital workflow for production of model castings and models."

Albert Köberlin, Dentaltechnik Köberlin, Pegnitz, Germany

"The Asiga MAX<sup>™</sup> represents an indispensable link for successful indirect bonding within the digital workflow chain."

Dr. Otmar Kronenberg, Dr. med. dent., Swiss-state certified dentist, Luzern, Switzerland



"PRECISE, FAST, RELIABLE - three words to define in summary the Asiga MAX<sup>™</sup>. Since I use this printer, I've come to know the difference between a professional 3D printer and the other available machines."

Michele lanotta, dental technician (orthodontics), L.O.Ve Laboratorio Ortodontico, Padua, Italy

"Our Asiga MAX 3D printer is the perfect complement to our digital workflow. Thanks to the accuracy of the 3D printing results, we can do completely without conventional impressions when scanning for preparations and models for planning. In addition, the printed models are very stable even for milling models and for thermoforming splints! We can work more efficiently in combination with the Omnicam and inLab."

Dr. med. dent. Matthias Nagengast, dentist, Bamberg, Germany



"The IMPRIMO<sup>®</sup> system fully completes our laboratory's digital workflow, with a reliable and fast printer we can confidently rely on for our high production workflow. It is a very smart and easy to use system that has been a straightforward integration to the lab, thanks to exellent support from SCHEU-DENTAL. The diversity of predictable materials gives us the possibility to provide a wide range of restaurations to our customers."

Toni Uski, dental technician and lab owner, Tulo Tandteknik, Täby, Sweden

### Accessories

### Innovative tray system

The tray system allows for easy changing and refilling of materials. Each tray is equipped with an RFID chip that is read by the printer and informs the user when to exchange the tray. Our range includes different trays with various maximum print volumes. All Asiga printers in our range feature the same tray system and handling. However, trays for the Asiga PRO HD/4K series are larger in size than those for Asiga MAX<sup>™</sup> printers. Further information is available upon request.

for Asiga M	AX™/Asiga MAX™LCD	1 liter	2 liter	5 liter	10 liter
REF		6516	6515	6517	6518



### Building materials:

Our printer resins guarantee a wide range of applications for 3D printers with DLP as well as with LCD technology.



IMPRIMO® LC Model IMPRIMO® LC Splint IMPRIMO® LC Impression IMPRIMO® LC Cast IMPRIMO® LC BT IMPRIMO® LC Gingiva IMPRIMO® LC Temp It IMPRIMO® LC MJF IMPRIMO® LC Denture IMPRIMO® LC Try-In

Working models, situation models, die models Occlusal splints, surgical drilling guides Bases for bite registration, functional trays Casting objects Transfer masks for the indirect bonding technique Gingival masks Provisional crowns and bridges as well as mock-ups Long-term temporaries such as crowns and briges as well as mock-ups Appliances for oral and maxillofacial surgery and implantology Denture bases Functional try-ins

### IMPRIMO® LC Model

Working models, situation models, die models



	DLP (385 nm)	LCD (405 nm)
// IMPRIMO <sup>®</sup> LC Model, 1 kg, ivory	REF 6502	
// IMPRIMO <sup>®</sup> LC Model, 1 kg, grey	REF 6504	
// IMPRIMO <sup>®</sup> LC Model, 1 kg, beige	REF 6505	REF 6561



IMPRIMO<sup>®</sup> LC Model is a photo-polymerizable and photosensitive resin that is best suited for solid or hollow models, for example with removable dies. The smooth and non-porous surface offers optimum conditions for further processing like for example pressure moulding. Suitable for 3D printers with DLP technology (385 nm) and LCD technology (405 nm). The material is available in ivory, grey and beige.

- Models generated with IMPRIMO<sup>®</sup> LC Model can be reproduced using duplicating material.
- The material is dimensionally stable when exposed to humidity and can be steam cleaned.
- The final product is characterized by a high dimensional stability and surface smoothness.
- When further processing methacrylates, we recommend using the 3D model insulation.
- The material does not contain any diluting monomers and is therefore odourless.

roperty	Standard	Result
Flexural strength	ISO 178	108 MPa
Elongation at break	ISO 178	5%
Elastic modulus	ISO 178	2.327 MPa
Shore hardness	ISO 7619-1	85 D
Viscosity (23°C)	DIN 53019-1	0,7 Pa s



IMPRIMO® LC Splint is best suited for the fabrication of transparent occlusal splints and surgical drilling guides. Thanks to curing at a wavelength of 385 nm the material retains its transparency. Suitable for 3D printers with DLP technology (385 nm).

require much finishing.

therefore odourless.

/ The material is biocompatible.

// The material does not contain any diluting monomers and is

- // Verified printing parameters guarantee an exact moulding.
- // The high elongation at break of the material provides additional security for the patient.
- // When cured, splints are dimensionally stable and free from distortion.
- // Thanks to the high manufacturing precision the splints do not

### Technical properties:

Property	Standard	Result
Flexural strength	ISO 20795-2**	64 MPa
Flexural strength	ISO 178	93 MPa
Elongation at break	ISO 178	10%
Elastic modulus	ISO 20795-2**	1.584 MPa
Elastic modulus	ISO 178	2.121 MPa
Shore hardness	ISO 7619-1	80 D
Viscosity (23°C)	DIN 53019-1	0,7 Pa s
Solubility	ISO 20795-2	1,4 µg mm-3
Water absorption	ISO 20795-2	24 µg mm-3
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: genotoxicity, carcinogenity and toxicity for reproduction	ISO 10993-3	comply
Biocompatibility: systemic toxicity	ISO 10993-11	comply
Biocompatibility: cytotoxicity	ISO 10339-5	comply

### IMPRIMO<sup>®</sup> LC Splint

\*\* based on

### IMPRIMO<sup>®</sup> LC Impression

Bases for bite registration, functional trays



Bases and functional trays generated with IMPRIMO<sup>®</sup> LC Impression guarantee a precise impression and are biologically compatible for the patient. Suitable for 3D printers with DLP technology (385 nm).

- The high material stability ensures distortion-free impression taking.
- Once cured, IMPRIMO<sup>®</sup> LC Impression is best suited for all common impression materials.
- Retention holes can be planned in advance in CAD modelling.
- / Smooth surfaces guarantee an optimal fit.
- / The material is biocompatible.
- The material does not contain any diluting monomers and is therefore odourless.

ce

Property	Standard	Result
Flexural strength	ISO 178	84 MPa
Elongation at break	ISO 178	10%
Elastic modulus	ISO 178	1.776 MPa
Shore hardness	ISO 7619-1	80 D
Viscosity (23°C)	DIN 53019-1	0,7 Pa s
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: genotoxicity, carcinogenity and toxicity for reproduction	ISO 10993-3	comply
Biocompatibility: systemic toxicity	ISO 10993-11	comply
Biocompatibility: cytotoxicity	ISO 10993-5	comply



### IMPRIMO® LC Cast

Objects for the casting technique



	DLP (385 nm)	LCD (405 nm)	
// IMPRIMO <sup>®</sup> LC Cast, 1 kg, red	REF 6507	REF 6562	

IMPRIMO® LC Cast is ideally suited for printing objects in the precision casting technology. Suitable for 3D printers with DLP technology (385 nm) and LCD technology (405 nm).

- / Material burns without leaving residues.
- // Non-porous and precise surfaces.
- // Even the most complex structures can be easily embedded
- // All common standard investment materials can be used.
- Red colouring for easy control.

Property	Standard	Result
Flexural strength	ISO 178	86 MPa
Elongation at break	ISO 178	5%
Elastic modulus	ISO 178	1.791 MPa
Shore hardness	ISO 7619-1	85 D
Viscosity (23°C)	DIN 53019-1	0,3 Pa s

### IMPRIMO® LC IBT

Transfer masks for the indirect bonding technique



IMPRIMO® LC IBT is best suited for the fabrication of bracket transfer masks in the indirect bonding technique. Suitable for 3D printers with DLP technology (385 nm).

- Easy control of bracket positioning thanks to material transparency.
- / The transfer masks can be disinfected.

- The transfer masks are stable and distortion-free even in case of larger margins.
- // IMPRIMO<sup>®</sup> LC IBT is biocompatible.

Property	Standard	Result
Elongation at break	DIN 53504	50%
Tensile strength	DIN 53504	6,2 MPa
Shore hardness	ISO 7619-1	40 D
Viscosity (23°C)	DIN 53019-1	2,5 Pa s
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: cytotoxicity	ISO 10993-5	comply



IMPRIMO® LC Gingiva is used for flexible gingival masks for high-precision implants. Suitable for 3D printers with DLP technology (385 nm).

- High precision and aesthetics, in particular for work in the anterior region.
- / The gingival colour looks natural.
- // The material flexibility is similar to the one of the gingiva.
- IMPRIMO<sup>®</sup> LC Gingiva perfectly complements IMPRIMO<sup>®</sup> LC Model in the realisation of implant models based on biometric data.

Property	Standard	Result
Elongation at break	DIN 53505	90%
Tensile strength	DIN 53505	5 MPa
Shore hardness	ISO 7619-1	50 A
Viscosity (23°C)	DIN 53019-1	2,5 Pa s

### IMPRIMO® LC Temp

Temporary restorations, provisional crowns, bridges as well as mock-ups





IMPRIMO<sup>®</sup> LC Temp is destined for temporary restorations and mock-ups. Suitable for 3D printers with DLP technology (385 nm). The printer resin is available in the colours VITA classical A1, A2, A3.

- The material is characterized by high resistance to abrasion and breakage.
- Temporaries generated with IMPRIMO<sup>®</sup> LC Temp can be fastened with temporary cements.
- // IMPRIMO® LC IBT is biocompatible.

- // The surface of the cured material can be easily polished.
- The material does not contain any diluting monomers and is therefore odourless.

Property	Standard	Result
Flexural strength	ISO 10477	91 MPa
Flexural strength	ISO 178	113 MPa
Elongation at break	ISO 178	4%
Elastic modulus	ISO 178	2.442 MPa
Shore hardness	ISO 7619-1	80 D
Viscosity (23°C)	DIN 53019-1	1,5 Pa s
Solubility	ISO 4049	1,1 µg mm-3
Water absorption	ISO 4049	31,1 µg mm-3
Colour stability	ISO 4049	≤ 1,5
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: genotoxicity, carcinogenity and toxicity for reproduction	ISO 10993-3	comply
Biocompatibility: systemic toxicity	ISO 10993-11	comply
Biocompatibility: cytotoxicity	ISO 10993-5	comply



### IMPRIMO® LC Temp It

Long-term temporaries such as crowns and bridges as well as mock-ups

![](_page_22_Figure_3.jpeg)

IMPRIMO® LC Temp It is destined for fabrication of long-term temporaries. Suitable for 3D printers with DLP technology (385 nm). The printer resin is available in the colours VITA classical A1, A2, A3.

- The material is characterized by high resistance to abrasion and breakage.
- Temporaries generated with IMPRIMO<sup>®</sup> LC Temp It can be fastened with temporary cements.
- // IMPRIMO<sup>®</sup> LC Temp It is biocompatible.

### Technical properties:

//	The surface	e of the	cured	material	can	be	easily	polished
----	-------------	----------	-------	----------	-----	----	--------	----------

The material does not contain any diluting monomers and is therefore odourless.

Property	Standard	Result
Flexural strength	ISO 4049	112 MPa
Flexural strength	ISO 178	169 MPa
Elongation at break	ISO 178	4%
Elastic modulus	ISO 178	5.528 MPa
Shore hardness	ISO 7619-1	80 D
Viscosity (23°C)	DIN 53019-1	3,5 Pa s
Solubility	ISO 4049	1,1 µg mm <sup>-3</sup>
Water uptake	ISO 4049	31,1 µg mm-3
Colour stability	ISO 4049	≤ 1,5
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: genotoxicity, carcinogenity and toxicity for reproduction	ISO 10993-3	comply
Biocompatibility: systemic toxicity	ISO 10993-11	comply
Biocompatibility: cytotoxicity	ISO 10993-5	comply

### IMPRIMO<sup>®</sup> LC Try-In

Functional try-ins for digitally planned denture bases

![](_page_23_Picture_3.jpeg)

	DLP (385 nm)
// IMPRIMO <sup>®</sup> LC Try-In, 1 kg, A1	REF 6541
// IMPRIMO <sup>®</sup> LC Try-In, 1 kg, A2	REF 6542
// IMPRIMO <sup>®</sup> LC Try-In, 1 kg, A3	REF 6543

![](_page_23_Picture_5.jpeg)

IMPRIMO® LC Try-In is suitable as basic material for functional try-ins of digitally produced denture bases. Suitable for 3D printers with DLP technology (385 nm). The printer resin is available in the colours VITA classical A1, A2 A3.

- Using IMPRIMO<sup>®</sup> LC Try-in, moulded parts like denture bases with individual tooth position can be generatively manufactured for try-ins to check bite registration and occlusion.
- / The material is biocompatible.
- The material does not contain any diluting monomers and is therefore odourless.

Property	Standard	Result
Flexural strength	ISO 178	91 MPa
Elongation at break	ISO 178	8%
Elastic modulus	ISO 178	2.028 MPa
Shore hardness	ISO 7619-1	80 D
Viscosity (23°C)	DIN 53019-1	0,7 Pa s
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: genotoxicity, carcinogenity and toxicity for reproduction	ISO 10993-3	comply
Biocompatibility: systemic toxicity	ISO 10993-11	comply
Biocompatibility: cytotoxicity	ISO 10993-5	comply

![](_page_24_Picture_0.jpeg)

IMPRIMO<sup>®</sup> LC Denture is destined for fabrication of denture bases. Suitable for 3D printers with DLP technology (385 nm). The material meets the requirements for dental products relating to water absorption and water solubility according to ISO 20795-1: 2013. Available in orange pink, light pink and deep pink.

- Compared to conventionally used PMMA-based materials, IMPRIMO<sup>®</sup> LC Denture shows low shrinkage and thus a high degree of accuracy.
- / The surface of the cured material can be easily polished.
- // Without strong-smelling diluting monomers.

/ The material is biocompatible.

Property	Standard	Result
Flexural strength	ISO 20795-1**	84 MPa
Flexural strength	ISO 178	114 MPa
Elongation at break	ISO 178	8%
Elastic modulus	ISO 20795-1**	2.383 MPa
E-Modulus	ISO 178	2.438 MPa
Shore hardness	ISO 7619-1	85 D
Viscosity (23°C)	DIN 53019-1	0,5 Pa s
Solubility	ISO 20795-1	0,41 µg mm <sup>-3</sup>
Water absorption	ISO 20795-1	$\leq 25,8~\mu g~mm^{-3}$
Colour stability	ISO 10477	≤ 2,5
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: genotoxicity, carcinogenity and toxicity for reproduction	ISO 10993-3	comply
Biocompatibility: systemic toxicity	ISO 10993-11	comply
Biocompatibility: cytotoxicity	ISO 10993-5	comply

### IMPRIMO® LC MJF

Appliances for the oral and maxillofacial surgery

![](_page_25_Picture_3.jpeg)

IMPRIMO<sup>®</sup> LC MJF is destined for fabrication of appliances for the oral and maxillofacial surgery and implantology. Suitable for 3D printers with DLP technology (385 nm). IMPRIMO<sup>®</sup> LC MJF is characterized by a high degree of hemo and biocompatibility which is unrivalled wordwide according to the current state of knowledge.

- Objects generated with LC IMPRIMO<sup>®</sup> MJF are apt for the usual sterilization methods such as plasma, autoclave, gamma radiation and ethylene oxide sterilization.
- // The material is hemocompatible and extremely biocompatible.
- The material does not contain any diluting monomers and is therefore odourless.

Property	Standard	Result
Flexural strength	ISO 20795-2	80 MPa
Flexural strength	ISO 178	117 MPa
Elongation at break	ISO 178	5%
Elastic modulus	ISO 178	2.508 MPa
Elastic modulus	ISO 20795-2	1.668 MPa
Shore hardness	ISO 7619-1	85 D
Viscosity (23°C)	DIN 53019-1	0,7 Pa s
Solubility	ISO 20795-2	0,51 µg mm <sup>-3</sup>
Water absorption	ISO 20795-2	19,9 µg mm-3
Biocompatibility: irritation and delayed-type allergies	ISO 10993-10	comply
Biocompatibility: hemocompatibility	ISO 10993-4	comply
Biocompatibility: genotoxicity, carcinogenity and toxicity for reproduction	ISO 10993-3	comply
Biocompatibility: systemic toxicity	ISO 10993-11	comply
Biocompatibility: cytotoxicity	ISO 10993-5	comply

![](_page_26_Picture_0.jpeg)

### Cleaning

### Completely clean.

Cleaning unit for gentle cleaning of 3D printed objects. IMPRIMO<sup>®</sup> Clean creates a circular flow in the cleaning solution to reduce the risk of micro-cracks in the part surface, thus increasing its quality.

Different cleaning programs allow for precise matching with the selected material class and choice of the cleaning agent. The easy removable insert enables quick and clean replacement of the cleaning solution. It will be possible to monitor the cleaning parameters by means of a separately available app in order to allow for complete documentation of the cleaning process.

#### Technical data:

IMPRIMO <sup>®</sup> Clean
REF
Power
Dimensions (W x D x H)
Cleaning chamber

Software Network compatibility Touch panel 6534 230 V 404 x 404 x 100 mm 140 x 140 x 100 mm (4 I capacity) Linux OS Wifi 7"

**Cleaning liquid** 

// IMPRIMO<sup>®</sup> Cleaning Liquid

IMPRIMO\* Clean

REF 6533

![](_page_27_Picture_11.jpeg)

# Curing

### Goodbye inhibition layer.

Light oven for the polymerization of 3D printed objects with LED exposure technology and protective gas device (nitrogen), avoiding the formation of an inhibition layer.

Control of exposure parameters is done via touch screen. Builtin sensors measure the protective gas flow in the polymerization chamber and inform the user about the state of the light source.

IMPRIMO<sup>®</sup> Cure will be able to communicate with an app via a wireless network to transmit QM relevant data like exposure programs.

Led

Gas

IMPRIMO® Cure

#### Technical data:

#### IMPRIMO® Cure REF Dual wavelength Light source Power Dimensions (W x D x H) Weight UV chamber Software Network compatibility Sensor Working pressure Touch panel

6532 365/405 nm UV-LED 230 V 405 x 210 x 430 mm 10 kg 167 x 115 x 105 mm Linux 0S Wifi Gas pressure, UV sensor 1.8 bar 7"

![](_page_29_Picture_0.jpeg)

# SCHEU-ACADEMY – Training courses and seminars.

Continuous training is a key factor for the success in clinics and laboratories. You and your team should always be up to date in order to deal with the challenges in the daily routines.

For some years now, our SCHEU-ACADEMY offers training courses and seminars for dental clinicians and technicians at a regular basis, including courses on CA<sup>®</sup> CLEAR ALIGNER and TAP<sup>®</sup> certification as well as pressure moulding workshops and courses on digital orthodontics and 3D printing. By practical examples you learn how to achieve even more professional results in the future and how to implement new findings into your daily work routines. Moreover, you get to know our innovative products and techniques and get expert tips.

With the support of our internal and external speakers we offer various courses for advanced training at a regular basis.

The training laboratory of our SCHEU-ACADEMY being part of our administrative building in Iserlohn is equipped with cutting-edge technology and can accommodate eight participants. Working in small groups guarantees intense learning combined with individual advice and support.

Our external courses chaired by renowned experts are held in selected training institutions or conference hotels. Our current seminars and training courses for practices and laboratories can be found at:

www.scheu-dental.com/scheu-academy

![](_page_29_Picture_8.jpeg)

### Your Contact:

It has always been our concern to give you practical advice, combined with a sound basis in specialist knowledge. Our co-workers in the sales and customer service department are happy to support you with qualified advice. For any information on digital technologies please contact our support team:

Arne Westmeier Dental Technician Manager Digital Technologies

![](_page_30_Picture_3.jpeg)

phone: +49 2374 9288-68 a.westmeier@scheu-dental.com Michael Krause Graduated Physicist Manager Digital Technologies

phone: +49 2374 9288-71 m.krause@scheu-dental.com

![](_page_30_Picture_7.jpeg)

#### **George Hanna**

Mechanical Engineer Sales Engineer for 3D Printing Technologies

phone: +49 2374 9288-255 g.hanna@scheu-dental.com

![](_page_30_Picture_11.jpeg)

Kübra Şamlı B. Sc. Medical Computer Scientist Software Support

phone: +49 2374 9288-256 k.samli@scheu-dental.com

![](_page_30_Picture_14.jpeg)

**High-precision 3D printing for a wide range of applications:** 

![](_page_31_Figure_2.jpeg)

#### The IMPRIMO<sup>®</sup> system is part of the digital process chain SMART FLOW.

Watch and experience the SMART FLOW:

![](_page_31_Picture_5.jpeg)

![](_page_31_Picture_6.jpeg)

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phone +49 2374 9288-0 fax +49 2374 9288-90 Am Burgberg 20 58642 Iserlohn · Germany F Facebook scheu.dental

![](_page_31_Picture_12.jpeg)