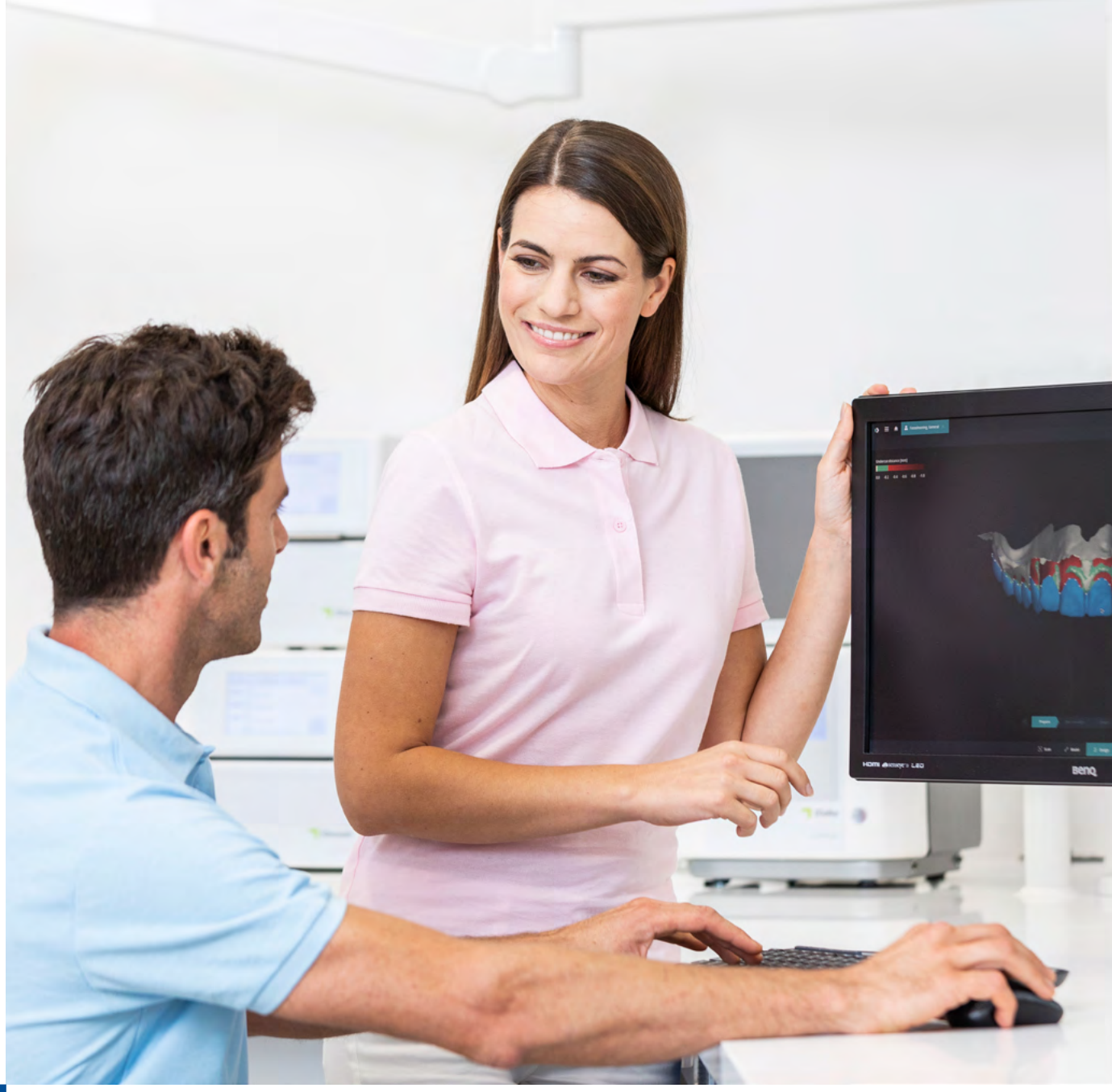

Complete solutions for the digital workflow

Software · Hardware · Resins

DMG

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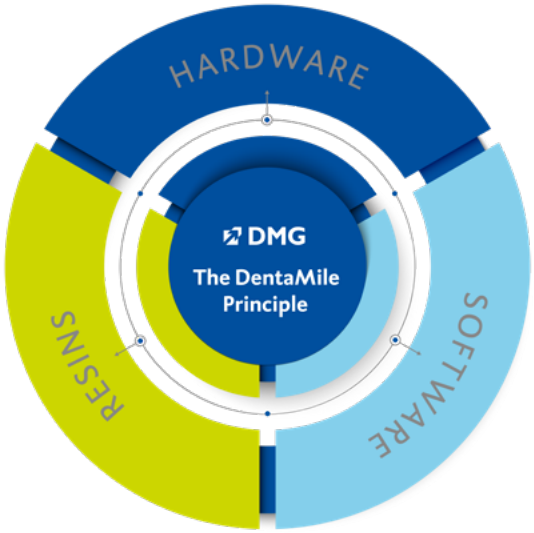
DMG DentaMile – 3D printing redefined

Fast. Intuitive. Validated.

The digital future can only begin in day-to-day work after we have said goodbye to a multitude of individual solutions. What is needed is an integrated approach to a digital workflow for the dental clinic and the lab that allows software, hardware, and materials to interconnect perfectly. Efficient and reliable.



At DMG, we are fully committed to this concept. In everything we do. From cloud-based software and 3D printers to post-processing units and materials.

The integrated workflow developed according to this concept is what makes the DMG DentaMile portfolio so extraordinarily practical. Fast, intuitive, and validated.

We call this »The DMG DentaMile principle«

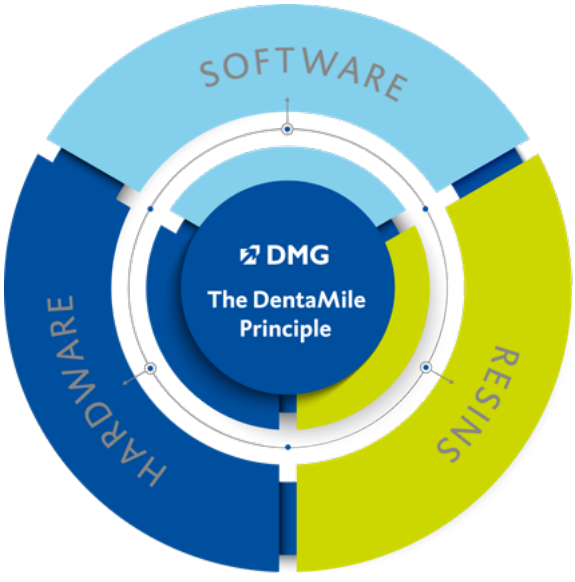
An integrated approach.
The DMG DentaMile portfolio, based on five decades of dental experience, offers all the components needed for an efficient digital workflow from one provider: The revolutionary cloud-based DentaMile connect software for mastering existing technical barriers. Our powerful 3D printers, DMG 3Delite and 3Demax, with the supplementary post-processing units DMG 3Dewash and 3Decure. And high-quality LuxaPrint materials for dental 3D printing.

Your benefits with DMG DentaMile:

- A comprehensive solution that is reliable, cost-effective and sustainable
- Innovative, cloud-based workflow with the highest level of data security
- Increased profitability due to process acceleration and the optimised collaboration between dental clinic and dental laboratory
- The opportunity to offer patients immediate solutions
- Use of the DentaMile platform to exchange information and digital data
- Reliable, standardised and traceable manufacturing of validated medical devices

Below we would like to present the individual modules of the DMG DentaMile digital workflow principle in more detail.

DMG DentaMile **Software**



DentaMile connect

3D the way I want it

The award-winning cloud-based software that overcomes technical barriers, connects dentists and laboratories, and improves collaboration!

To tap into the digital potential as regards quality and efficiency, different devices need to be networked, and processing steps need to be digitally mapped and documented.
Besides the hardware and appropriate materials, the decisive factor for this is: the right software.

3D printing to suit your needs: The flexible DentaMile options

Printing your own 3D models? Networking with a dentist or a partner laboratory? Just scanning? Or designing digital models as well? You can get involved in the digital workflow no matter what you're doing. DentaMile's flexible licence model offers you a variety of options. You decide what you'd like to do – and which licence package is right for you.

How much 3D can there be?

DentaMile connect's »Creator« or »Creator Plus« options allow you to create patient data, upload STL files and then submit them for design and printing.

The »Designer« option enables users to independently design all the printed objects (e.g. splints) too.

If you'd like to work your way through all the steps in the digital workflow, including 3D printing and post-processing, then the »Producer« option is the perfect product for you.

All the options allow you to work together with dentists and partner laboratories as part of a network.

Your options with DentaMile connect at a glance

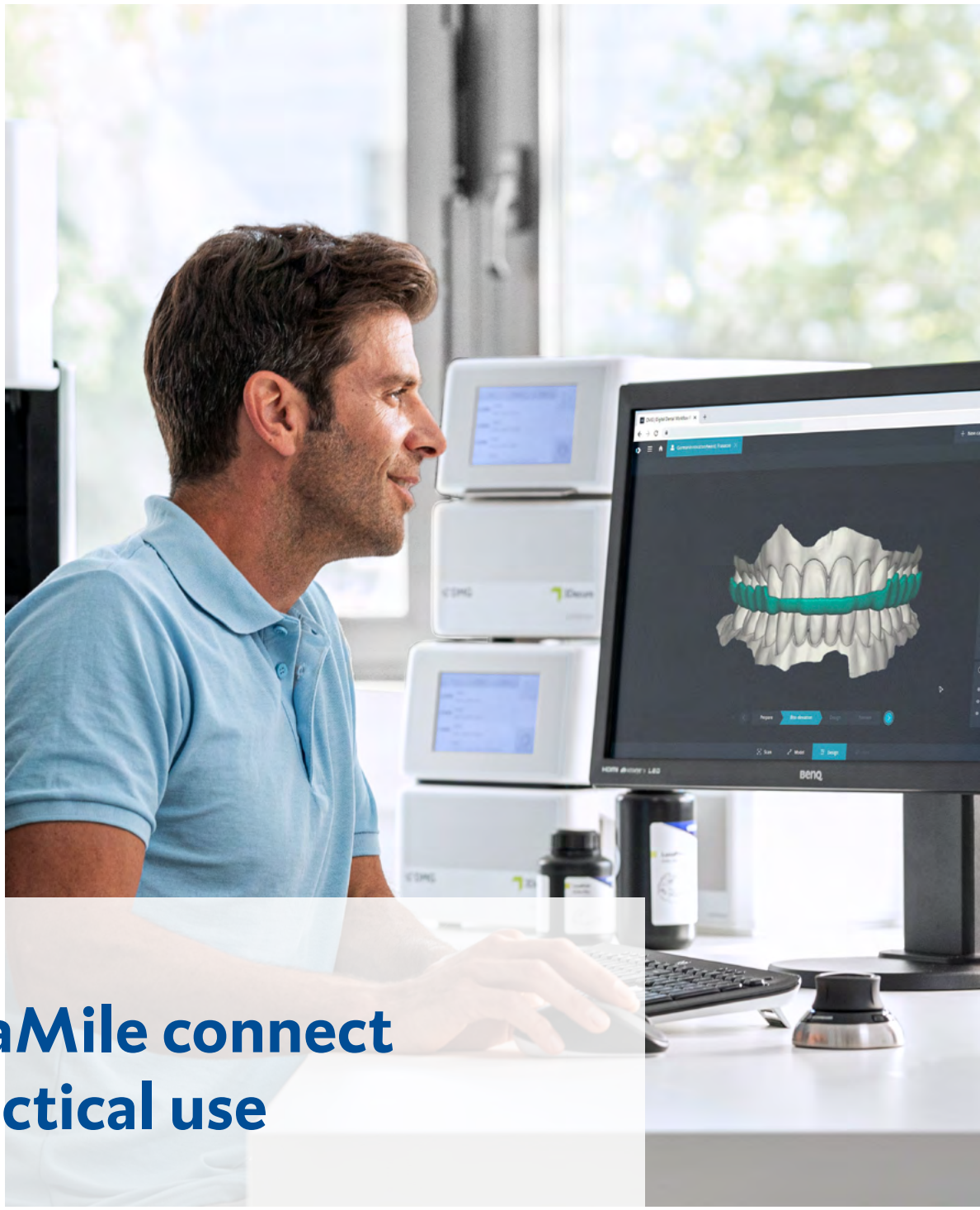
Features included	Creator	Creator Plus	Designer	Producer
Creating patient data and uploading STL files	✓	✓	✓	✓
Design workflow (including virtual articulator)	✗	✗	✓	✓
Automated 3D printing	✗	✗	✗	✓
Sharing and delegating cases	✓	✓	✓	✓
Connections to other DentaMile connect users	Limited to one connection to a Designer or Producer licence holder	Unlimited connections to Designers or Producers	Max. 15 connections to Creator licence holders; unlimited connections to Creator Plus and Producer licence holders	**Unlimited connections to Creator, Creator Plus and Designer licence holders**
Cloud storage	5 GB	5 GB	5 GB	**5 GB**
Free updates	✓	✓	✓	✓
Service and support	✓	✓	✓	✓

The minimum contract term for all licence options is 12 months. The contract will be automatically renewed at a charge for a further contract period if it is not terminated in writing by one of the parties at least three months before the end of the contract.

DentaMile connect allows you to optimally utilise the potential of your DMG 3D printers and the LuxaPrint materials from DMG.

What this means for you: Your workflows and investments are fit for the future.

For more information and active involvement in the design of the workflow:
www.dentamile.com



DentaMile connect in practical use

With intuitive user guidance and a lot of practical features, the DentaMile connect software helps you to create splints.

For example:

- Virtual fully adjustable articulator
- Intuitive operation, clearly arranged dashboard
- Networking with 3Demax/3Delite
- Simple networking with partner laboratories or practices

Work together!

DentaMile connect connects dentists and laboratories around the globe. In just a few clicks you can send scans, which can then be easily used to create designs in DentaMile connect and finally produce 3D-printed objects.

Design, print and delegate

You can do it all with DentaMile connect's various workflow options. Integrate 3D printing, for example, into your digital workflow – without requiring your own 3D printer. Two possible workflow examples:

Example of workflow via designer

Import STL-Scan → Create patient case → Delegate design → Create design → Delegate 3D printing → Complete task → Print! → Done!

Example of workflow direct to producer

Import STL-Scan → Create patient case → Design and delegate 3D printing → Complete task → Print! → Done!

The benefits of the DMG DentaMile connect software:

- Cloud-based – can be used from any location
- No software installation needed
- Immediate integration without a lot of training needed
- Short learning curve
- Prompt communication
- Networking of all parties involved in the production process
- Intuitive user guidance
- Simple import and editing of STL files
- Integrated slicing without system/technology changes
- Work processes simplified and standardised
- Manufacture “on-demand”
- Standardised validated manufacture of medical devices
- Users are able to fulfill MDR standards
- Once the printed object has been fully designed, it can be reproduced at any later date

Fast. Intuitive. Validated.

DentaMile connect is an innovative, cloud-based software system for the CAD/CAM manufacture of dental devices such as occlusal splints, crowns and bridges. Thanks to DentaMile connect, 3D printing has been simplified to such a degree that the technology can be fully incorporated into everyday working environments – from dental clinics to dental laboratories.

The ultimate goal is to achieve the use of 3D printing technology without technical barriers. This is an efficient and cost-effective way to open up access to modern dental care for a broad user group.

The software developed by DMG ensures that the workflow in medical device production is both safeguarded and validated. Errors are minimised and new functions are made accessible without requiring any additional technical effort. The highest level of data security is a matter of course.

DentaMile connect is cloud-based, so it can be used with any operating system. Standard modern equipment, such as a computer/laptop and an internet connection, is all that is needed. We recommend using the latest version of Google Chrome as your browser.

3D-printed models made easy – with the new model workflow from DMG DentaMile

Producing models with 3D printing, quickly and efficiently? The new DentaMile model workflow from DMG helps to optimise work processes, enhance productivity and achieve even more precise results.

Maximum flexibility and ideally networked

The DentaMile network allows you to easily connect with partners, generate design and print orders, and also receive them. With the file transfer function from DentaMile connect, STL files for the respective patient data can quickly and easily be made available in a safe environment within the DentaMile connect network. The model is designed in your external model builder. You can perform the printing yourself or delegate it to a partner in the DentaMile network. The cloud-based networking therefore opens up new possibilities for partnerships.

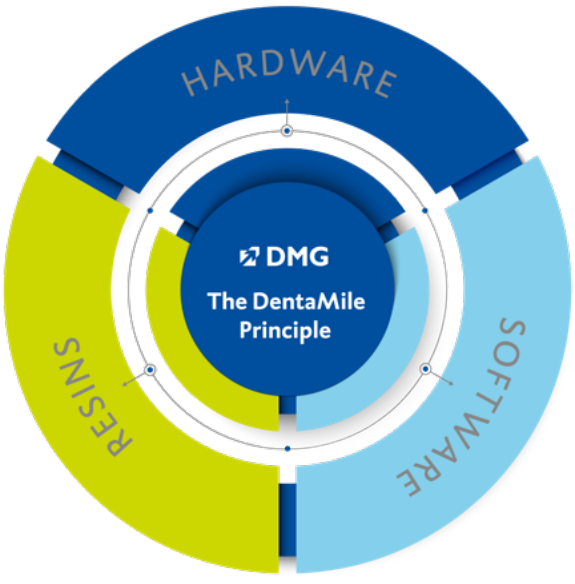
The world's first cloud-based bleaching tray workflow

Want to produce bleaching trays quickly and efficiently using 3D printing? Including high-precision reservoir design? It's not a problem with DentaMile connect and the world's first cloud-based workflow specifically for bleaching trays! Take advantage of the new opportunities of fast care. Convenient for patients, economically convincing for you.

Flexible, fast and well connected

With DMG DentaMile, you decide how you want to be part of the digital workflow – even if you don't have your own printer. In the new bleaching tray workflow, you can either determine the design and printing of the tray yourself or delegate it to a partner networked in the cloud. With the file transfer function from DentaMile connect, STL files for the respective patient data can quickly and easily be made available in a safe environment within the network. The cloud-based networking therefore opens up new possibilities for partnerships.

DMG DentaMile
Hardware



The secret to an optimal digital workflow? Teamwork.

3D from a single source

To make your work successful and as easy as possible, DMG supplies not only high-quality printers as part of its DMG DentaMile hardware, but also an entire system including coordinated post-processing units.

The benefits of the DMG DentaMile hardware:

- Minimum requirements in terms of the infrastructure needed (network)
- Set-up and interaction largely plug-and-play
- Low space requirements
- The requirements are correspondingly scalable (printer performance)
- Enables perfect interplay between material, printer and post-processing units
- Supports correct material selection and material-specific processing
- Provides simple, guided handling
- Simple manufacture principles that can be delegated
- All required process steps are documented and include instructions

Specifically, the DMG DentaMile hardware portfolio comprises the following components:

- 3D printer 3Demax
- 3D printer 3Delite
- 3D printer DentaMile Lab5/Lab5 Pro
- Cleaning unit 3Dewash
- Post-processing unit 3Decure

Well-connected

DMG DentaMile 3D printers are networked with the post-processing units through smart connectivity. Transfer of process information from the printer to 3Dewash and 3Decure devices is quick and straightforward, and offers maximum process reliability. Together with the award-winning cloud-based software DentaMile connect, an efficient validated workflow is now possible for digital additive fabrication.

DMG 3Demax

An all-rounder for the highest level of process reliability

Compact 3Demax is a high-precision, high-speed 3D printer for a wide range of dental 3D printing applications. The individual printed objects are built up layer by layer through precision curing of the material matrix by computerised LED light transmission.

All possibilities in 3D

Thanks to its ultrafine resolution and a generous build area, 3Demax can be used to create drilling templates, burnout casting structures, occlusal splints, crowns and bridges, models, and much more.

Highest level of process reliability…

Absolute safety and precision in the digital workflow is our top priority. The DMG 3Demax is extremely easy to calibrate; RFID technology (radio-frequency identification) ensures contact-free material identification and automatic identification of the material used.This prevents misapplications.
In addition, process data for documentation can be transparently verified and traced at any point - important for documentation complying with the safety requirements of the Medical Device Regulation MDR.

… at every speed

The »Force Feedback« option accelerates the printing process significantly. Using a highly sensitive load cell, the Force Feedback program controls the removal process of the workpiece after curing. This controlled process enables a significantly faster pace compared to a standard program. The high-precision control minimises the risk of misprints.

Safety via material identification (RFID)

The material used is identified without contact and automatically documented, avoiding misapplications.

The benefits of DMG 3Demax:

- Suitable for a wide spectrum of dental 3D applications
- Large build area for the simultaneous manufacturing of several workpieces
- Exceptionally high processing speed
- Precision without compromise
- Simple, material-saving handling and user guidance
- Validated process for reproducible printing results
- Safety via material identification (RFID)
- Outstanding price-performance ratio
- Reliable service structure
- Intelligent networked workflow in combination with 3Dewash and 3Decure
- Compatible with all standard dental CAD programs (STL files)

Technical data

Size (W/D/H)	335 x 349 x 541 mm
Build area (W/D/H)	130 x 75 x 115 mm
Max. workpiece height	100 mm
Native pixel resolution	+/- 34 µm
Connections	WLAN, TCP/IP, USB
Weight	approx. 33 kg

DMG 3Delite

The compact option for entry into the digital workflow

With the compact DMG 3Delite, you can make use of the advantages of the digital workflow without investing large amounts of time or money. The printer provides simple handling and is extremely easy to calibrate for reliably good printing results.

Quick and easy

3D printing can be a very simple process: Operating the 3Delite is extremely simple and intuitive. The practical concept for the consumable components permits flexible, resource-saving handling of consumable parts and materials.

The reusable consumable parts can be used for up to 5 print jobs without the effort of preparing the material tray and building plate.

The practical packaging of the 200 g bottle optimises flexibility and efficiency.
The »Force Feedback« option can also be used to significantly accelerate the printing process.

Safety included

Like the DMG 3Demax, the 3Delite also employs RFID technology (radio-frequency identification), which enables contact-free material identification and automatic documentation of the material used. This avoids incorrect use and ensures MDR-compliant documentation of the process data.

The benefits of DMG 3Delite:

- Compact and space-saving
- Straightforward operation
- Exceptionally high processing speed
- Precision without compromise
- Resource-saving handling of consumable parts and materials
- Two different build areas for efficient printing
- Validated process for reproducible printing results
- Safety via material identification (RFID)
- Force Feedback option for increasing printing speed
- Intelligent networked workflow in combination with 3Dewash and 3Decure
- Compatible with all standard dental CAD programs (STL files)
- Outstanding price-performance ratio
- Reliable service structure

Technical data

Size (W/D/H)	335 x 349 x 541 mm
Build area (W/D/H)	90 x 60 x 110 mm and 30 x 60 x 110 mm
Max. workpiece height	110 mm
Native pixel resolution	+/- 34 µm
Connections	WLAN, TCP/IP, USB
Weight	approx. 27 kg

DMG Lab5

The professional printer for high volumes and efficiency

The DentaMile Lab5 is the professional 4K 3D printer you need for efficient series production. The new DentaMile Lab5 allows for the production of cost-effective, high-volume printing. To this end, the high-precision 3D printer offers an especially large build platform, as well as the option to print several print jobs automatically in succession.

Simply work efficiently
You can use your DentaMile Lab5 for a wide range of dental 3D applications. Simple, material-saving handling allows you to work highly efficiently in all cases. Uncompromising printing accuracy is maintained even at high processing speeds, while the large build area enables several workpieces to be produced simultaneously.

The DentaMile Lab5 is compatible with all standard CAD programs (STL files). As a DentaMile Lab5 or DentaMile Lab5 Pro owner, you can download your STL files from DentaMile connect, position them in Autodesk Netfabb, then control the 3D printer from Netfabb.

Process reliability at top speed
Thanks to innovative RFID (radio frequency identification) technology, the material used is identified contactlessly and documented automatically. This helps to prevent misapplications.

The »Force Feedback« option accelerates the printing process significantly. Using a highly sensitive load cell, the Force Feedback program controls the removal process of the workpiece after curing. This controlled process enables a significantly faster pace compared to a standard program. The high-precision control minimises the risk of misprints.

The choice is yours.
The DentaMile Lab5 is available as a basic version or as DentaMile Lab5 Pro with additional automatic refill and separation function for finished print objects (ASM).

In this process, printed parts are automatically separated from the build platform and collected in a basket. The next print job then starts without any manual intervention. The automatic refill unit ensures there is always enough print material in the material tray.

The benefits of DentaMile Lab5:

Superior technology
- Professional high-precision 4K light source
- Print chamber can be heated up to 35 °C
- Integrated force feedback system

Efficient application
- Large build area for the simultaneous manufacturing of several workpieces
- Exceptionally high processing speed
- Precision without compromise

Maximum safety
- Software-supported, validated application creates reproducible dental device result.
- Safety via material identification (RFID)
- Compatible with all standard dental CAD programs (STL files)

Technical data

Size (W/D/H)	600 x 570 x 1660 mm
Build area (W/D/H)	231 x 130 x 300 mm (DentaMile Lab5 basic version) or 100 mm (DentaMile Lab5 Pro ASM version)
Max. workpiece height	300 mm (DentaMile Lab5) or 100 mm (DentaMile Lab5 Pro)
Native pixel resolution	+/- 30 µm
Connections	WLAN, TCP/IP, USB
Weight	110 kg (DentaMile Lab5) 120 kg (DentaMile Lab5 Pro)
Resolution	4K (3840 x 2160 pxl) with 385 nm LED

DMG 3Dewash

Cleaning unit for the systematic and standardised cleaning of printed objects according to the manufacturer's specification as part of the supported process reliability

The 3Dewash cleaning tray is large enough to allow objects printed using 3Delite to be further processed on the building plate.

The benefits of DMG 3Dewash:

- Fully automatic in 4-8 minutes
- No contact with sticky resins and cleaning fluids
- Validated workflows
- Touch-display control
- Computer-controlled programs ensure the most effective use of cleaning fluids

Technical data

Size (W/D/H)	230 x 450 x 270 mm
Volume	130 x 75 x 60 mm
Working time	between 4-8 minutes, depending on the material
Cleaning agent	Isopropyl alcohol; others according to material specifications
Connections	WLAN/LAN

DMG 3Decure

Light curing unit for final curing as part of the monitored, control process

The material-dependent curing programs ensure process reliability for the production of a medical device according to product specifications and documentation. The curing chamber of the 3Decure is large enough to allow objects printed using 3Delite to be further processed on the building plate.

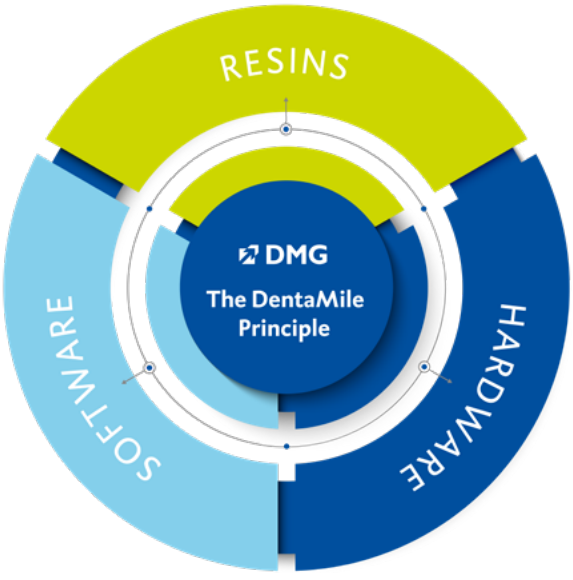
The benefits of DMG 3Decure

- Fully automatic material curing programs
- Integrated touchscreen
- Network connectivity
- Automatic calibration (ACCS)
- 360° lighting
- Can be stacked with DMG 3Dewash

Technical data

Size (W/D/H)	230 x 380 x 270 mm
Volume	130 x 75 x 60 mm
Working time	depends on material
Connections	WLAN/LAN, USB

DMG DentaMile
Resins



Nine high-quality material specialists for 3D printing

LuxaPrint is DMG's range of materials for your additive digital prosthetics.

The different materials are easy to use and versatile, delivering the DMG "Made in Hamburg" quality you have come to expect.

The right materials for the coordinated workflow

DentaMile workflows encompass all the components required for dental 3D printing. In addition to the DentaMile connect software itself, this includes high-performance 3D printers, coordinated post-processing units and high-quality materials. The result is a validated workflow with optimal process reliability that is suitable for everyday use.

The LuxaPrint range consists of seven light-curing resins for a variety of purposes:

LuxaPrint Model
for models, in 4 shades

LuxaPrint Tray
for individual impression trays

LuxaPrint Cast
for cast objects

LuxaPrint Ortho
for drilling templates

LuxaPrint Ortho Plus
for occlusal splints

LuxaPrint Ortho Flex
for flexible splints

LuxaPrint Gingiva
for gingival masks

Speed with the highest level of precision

Faster is not always better. However, when quick printing is combined with extreme precision, work becomes significantly easier. With our LuxaPrint materials you can push the boundaries in both areas.

Super easy handling

Great care has been taken in all LuxaPrint variants to ensure ease of use – both before and after printing. Production takes place quickly and precisely. The printed objects have a surface structure which is accurate in every detail and they are very easy to clean.

The benefits of the DMG DentaMile Resins

- Reliable results from the first print
- Rapid availability and fast delivery times
- Easy handling
- Versatile
- Good scalability thanks to practical bottle sizes
- Very high quality standards

LuxaPrint Ortho Plus

Light-curing 3D print resin for the generative manufacture of splints and orthodontic appliances

- For hard splints
- Clear transparent
- Exact fit
- Not brittle

Comfortable to wear
LuxaPrint Ortho Plus, a Class IIa medical device, is perfectly suited for the manufacture of bite splints and appliances for orthodontic treatments. Its high transparency is equal to that of vacuum-formed splints and provides the basis for optimally checking the fit. An extremely smooth surface, together with odour and taste neutrality, make for a high level of wearing comfort.

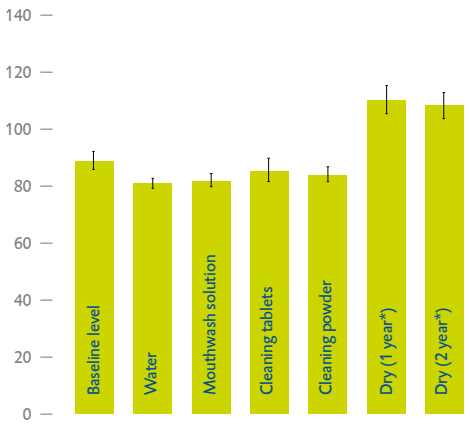
Stability you can rely on
The excellent flow property of the resin results in a particularly dense surface. The high impact strength, without brittleness, permits an extremely robust process.

Storage tests
What is the best way for the patient to store a printed splint and could it become brittle if stored in a dry environment? At DMG, we have investigated this question in extensive internal storage tests. Test specimens from LuxaPrint Ortho Plus were used for this purpose.

Some key data from the tests:
- Cleaning of test specimens in various media: Water, mouthwash care and cleaning products for retainers, splints, prostheses and mouthguards
- Simulation of the long-term situation in the patient by using thermocyclers
- Specimens stored in a dry environment at 40 °C
- Measured values: Flexural strength, flexural modulus

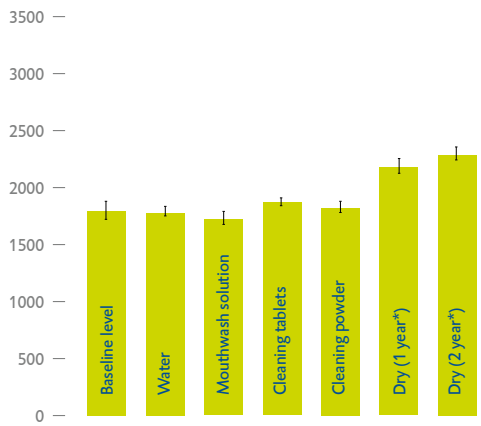
The result:
The storage stability of over two years at room temperature was verified.
The splints did not become brittle!
Irrespective of the storage medium, there were no significant differences in the measured values within the measurement accuracy range. Therefore, the storage method and cleaning medium are irrelevant for splints made of LuxaPrint Ortho!

Flexural strength in MPa



* Equivalent from accelerated aging test

Flexural modulus in MPa



* Equivalent from accelerated aging test

Recommendations for practical work

Design

- Minimum material thickness 1.5 mm
- Early and interfering contacts can be avoided by carefully designing an adjusted surface. This reliably avoids incorrect stress in spots and the associated risk of a breakage

Polishing

- Rough remnants of the support can be sanded down with sandpaper/corundum paper (e.g. grain size 120 µ)
- Pre-polish on the polishing motor with a pumice stone (finely) and a goat hair brush
- Create a high gloss with a high-gloss buff and a universal plastic polishing paste

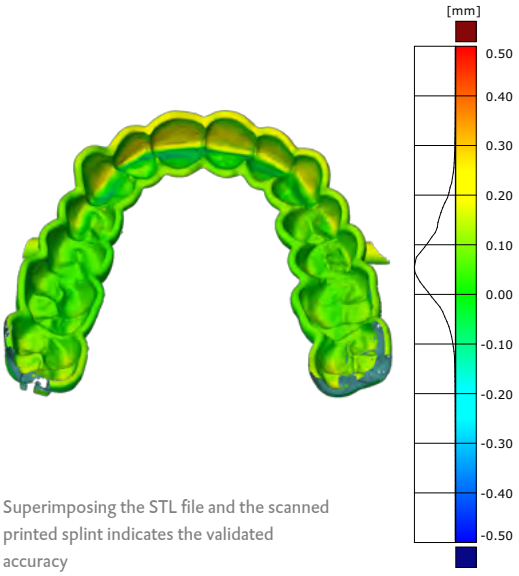
Printing

- Best-fit alignment occlusal supports in horizontal direction (0-20°)
- Support style 3Demax/3Delite »Splint«

Optional processing / polishing steps:

- Ceramic milling cutters or fine cross-cut plastic milling cutters can be used for changing the shape of splint edges or for shortening them (shape grinding)
- A silicone-saturated fibre fleece wheel can be used for removal, rounding and smoothing (pre-polishing) of the splint edges/surfaces

Printing and fitting accuracies



Superimposing the STL file and the scanned printed splint indicates the validated accuracy

Technical data

Cured material

Flexural strength	≥ 70 MPa
Flexural modulus	≥ 1 GPa
Shore-D hardness	≥ 60

Uncured material

Viscosity	≤ 2.5 Pa*s
Light sensitivity to fluorescent lamps	≤ 05:00 min

LuxaPrint Ortho

Light-curing 3D print resin for the manufacture of individual drilling templates with highest precision

- Exact fit of the drilling sleeves
- Drilling template in accurate position
- Clear transparent, for perfect control
- Unobstructed View of the surgical field
- Autoclavable, for high hygiene standards

What matters for drilling templates:
Precise drilling holes and an exact fit. Especially for drilling sleeves. LuxaPrint Ortho, a highly transparent premium resin on methacrylate base offers reliable support. Its excellent flow properties and printing parameters streamlined for dimensional stability ensure an optimal design. The demand for sterility is no challenge for this material: it meets the high demands of an implant in every particular.

Complete transparency
LuxaPrint Ortho is also characterised by its extremely high transparency: 99 % transparency ensures the clearest view of your work area and full control. Short printing times and low material requirements have the added benefit of making the manufacture in the lab pleasantly economical.

Tip: For cleaning fine structures, you can use a paintbrush or a fine brush.

Preparation prior to use on the patient

Disinfection
According to the manufacturer's specifications, the following disinfectants may be used:

- PrintoSept-ID (on the basis of quart. ammonium salts)
- SprayActiv, alcoholic disinfectant spray (also contains didecyldimethyl-N-chloride)
- Dentavon (solution prepared from granulate; contains penta-potassium-bis(peroxymonosulfate)-bis(sulfate), anionic surfactants, non-ionic surfactants, soap, phosphonate)

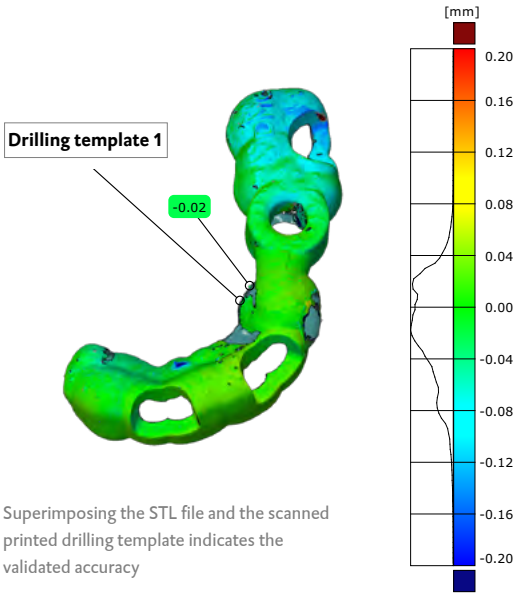
Autoclavability
Before use on the patient, the printed object can be autoclaved once.

Autoclaving parameters for steam sterilisation
Temperature: 134 °C / 273 °F at a pressure of 2 bar and a duration of 5 min.

Using the drilling sleeve

- To bond the drilling sleeves, apply a thin layer of liquid LuxaPrint Ortho material to the outside of the drilling sleeves with a brush beforehand
- Make sure that no material gets on the inside of the sleeves. These may need to be checked for ease of movement after curing

Printing and fitting accuracies



Superimposing the STL file and the scanned printed drilling template indicates the validated accuracy

Recommendations for practical work

Design

- Minimum material thickness 1.5 mm

Printing

- Best-fit alignment occlusal supports in horizontal direction (0-20°)
- Support style 3Demax/3Delite »surgical guide«

Polishing

- Rough remnants of the support can be sanded down with sandpaper/corundum paper (e.g. grain size 120 µ)
- Pre-polish on the polishing motor with a pumice stone (finely) and a goat hair brush
- Create a high gloss with a high-gloss buff and a universal plastic polishing paste

Optional processing / polishing steps

- Ceramic milling cutters or fine cross-cut plastic milling cutters can be used for changing the shape of splint edges or for shortening them (shape grinding)
- A silicone-saturated fibre fleece wheel can be used for removal, rounding and smoothing (pre-polishing) of the edges/ surfaces

Technical data

Cured material	
Flexural strength	≥ 70 MPa
Flexural modulus	≥ 1 GPa
Shore-D hardness	≥ 60

Uncured material	
Viscosity	≤ 2.5 Pa*s
Light sensitivity to fluorescent lamps	≤ 05:00 min

LuxaPrint Ortho Flex

Light-curing 3D printer resin for the additive fabrication of flexible splints in a digital workflow

- For flexible soft splints
- Versatile
- Optimal elasticity
- Highly tear-resistant and unbreakable
- Near-natural transparency
- Easy to clean

Flexible new possibilities
LuxaPrint Ortho Flex has optimal elasticity. The flexible material is dimensionally stable, highly tear-resistant and unbreakable, and therefore opens a multitude of interesting new application options for 3D printing, for example:

- Bleaching trays
- Transfer trays for the indirect bonding of brackets

Perfectly elastic, highly stable
Would you like to manufacture flexible splints easily and quickly as a 3D print? LuxaPrint Ortho Flex is your ideal partner – elastic and still reliable and stable. The excellent resilience of the material also makes the difference with bleaching trays. This ensures that the bleaching agent reliably remains where it is supposed to work. And not on the gums. The extreme tear-resistance and fracture resistance ensures maximum stability and longevity.

Quality gives rise to acceptance
LuxaPrint Ortho Flex is impressively less susceptible to discoloration, easy to clean and also tasteless and odourless.

Recommendations for practical work

Design
- Minimum material thickness 1 mm

Printing
- Best-fit alignment occlusal supports in horizontal direction (0-20°)
- Support style 3Demax/3Delite »Splint (soft)«

Polishing
- Rough remnants of the support can be sanded down with sandpaper/corundum paper (e.g. grain size 120 µ)
- Pre-polish on the polishing motor with a pumice stone (finely) and a goat hair brush
- Create a high gloss with a high-gloss buff and a universal plastic polishing paste

Optional processing / polishing steps:
- Ceramic milling cutters or fine cross-cut plastic milling cutters can be used for changing the shape of splint edges or for shortening them (shape grinding)
- A silicone-saturated fibre fleece wheel can be used for removal, rounding and smoothing (pre-polishing) of the edges/ surfaces

LuxaPrint Model

Light-curing 3D print resin for the production of dental models

- Finest surface structure for perfect identification of details
- Dimensional stability
- Precise

The basis for precise work

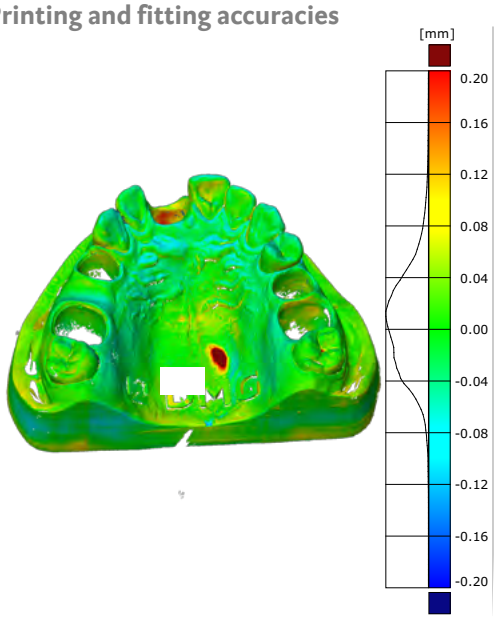
The dental model is an important part of the digital workflow. LuxaPrint Model is a light-curing precision resin for the manufacture of various 3D print models – whether complete or partial with or without removable stumps for aesthetically demanding work.

Top class, mechanically and visually

The surface of models created with LuxaPrint Model is exceptionally fine, smooth and pore-free. The models offer very high detail reproduction and excellent detail precision. The opaque shade chosen allows for optimal identification of all model contours and preparation margins on stump models and provides the corresponding basis for highly precise prostheses. Thanks to maximum surface hardness and dimensional stability, the models meet the highest demands for mechanical properties.

Tip for 3Demax: To make it easier to remove the model from the platform, a base grid with a height of 1.5 mm can be imported on the platform and then the model can be raised by about 1 mm.

Printing and fitting accuracies



Superimposing the STL file and the scanned printed model indicates the validated accuracy

Recommendations for practical work

Design

- Design the models to be hollow
- Recommendation for the stump design: conical is better than parallel

Printing

- Print models directly on the building plate; supports are not required
- Aligner models can also be printed on two levels to optimally utilise the entire installation space volume

Post-curing

Important: Before post-curing stump models, ensure that the stump holes are perfectly cleaned, as otherwise the stump fitting will be impaired!

Technical data LuxaPrint Model

Cured material	
Flexural strength	≥ 40 MPa
Flexural modulus	≥ 1 GPa
Shore-D hardness	≥ 50

Uncured material	
Viscosity	≤ 2.5 Pa*s
Light sensitivity to fluorescent lamps	≤ 05:00 min

LuxaPrint Tray

Light-curing 3D print resin for the generative manufacture of individual impression trays

- Quick to print
- Extremely stable
- Exact fit

New possibilities
With the CAD/CAM manufacture, retention holes in the impression trays can be conveniently manufactured in one step without any additional drill holes being required. Even rounded edges can be mapped without any elaborate regrinding of the border edges being required.

Fast working
LuxaPrint Tray is a certified Class I medical device and suitable for all types of spoons in combination with all standard impression materials. The curing depth, which is perfectly aligned to the 3D print process, allows for an optimum resolution even at the highest printing speeds.

A reliable fit
Very high dimensional stability and flexural strength for exact, distortion-free impression-taking from the patient. The exceptionally smooth surfaces of the printed objects provide the basis for an excellent fit.

Note: Do not use heat-based disinfection or sterilis ation methods. Otherwise, the workpiece may be deformed.

Recommendations for practical work

Design

- A thicker wall thickness is advantageous for a stable impression tray
- When designing, holes in the tray are useful for material retention, depending on the impression tray material and viscosity
- A circumferential beading can also improve the hold of the impression material
- A suitable DMG tray adhesive resin may be used if necessary

Processing/polish

- After removing the supports, carefully check the printed object for any sharp remnants and grind down if necessary
- After removing the supports, grind down the remnants with a fine cross-cut plastic milling cutter or sandpaper/ corundum paper (e.g. 120 µ or 80 µ grit)
- High gloss is not necessary

Optional processing / polishing steps

- Edges can be rounded and surfaces can be smoothed with a fibre fleece wheel

Technical data

Cured material

Flexural strength	≥ 70 MPa
Flexural modulus	≥ 1 GPa
Shore-D hardness	≥ 50

Uncured material

Viscosity	≤ 2.5 Pa*s
Light sensitivity to fluorescent lamps	≤ 05:00 min

LuxaPrint Cast

Light-curing 3D print resin for the manufacture of residue-free burn-out moulds (e.g. denture frameworks, crowns and bridges)

- Fine surface structure
- Dimensional stability
- Easy to cast (no cracks)

It's great when there is an easier way
The classic manufacture of model castings, crowns and bridges requires many relatively elaborate manual process steps. Fabricating a cast object often involves the use of waxes and duplicating silicone, for example. Using LuxaPrint Cast and modern digital model casting technology, the manufacturing process is simplified significantly.

Putting an end to cracks
One of the most striking properties of LuxaPrint Cast is its truly reliable, residual-free casting. Cracks are now a thing of the past.
The exceptionally fine surface and high dimensional stability of LuxaPrint moulds ensure a distortion-free embedding and provide the prerequisite for a high precision fit of the cast objects.
The resin expansion, adapted to speed embedding material, allows for preheating in the shock-heat method and ensures significant time savings during the heating process.

> **Tip: For cleaning fine structures, you can use a paintbrush or a fine brush.**

Recommendations for practical work

Design
- Minimum thicknesses depend on the material that is to be poured/injected

Printing
- Best-fit alignment occlusal supports
- Support style 3Demax/3Delite for model cast »partial framework«, for crowns and bridges, »crown & bridge«, »C&B molar« or »C&B front teeth and veneers«

Casting
- In order to obtain an optimal printing and casting result, pronounced projections, corners and edges should be avoided during construction

Polishing
- No polishing required

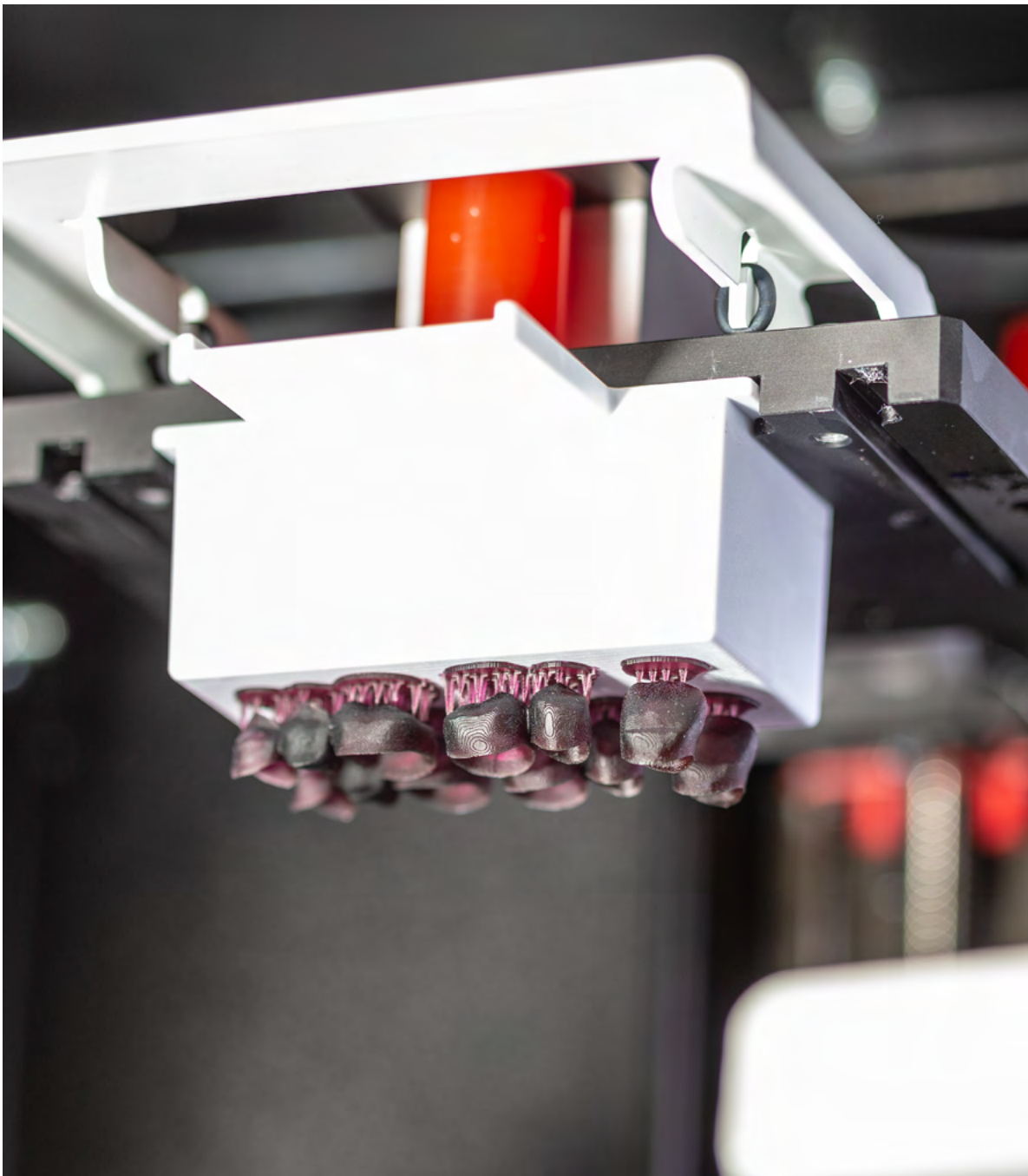
Technical data

Cured material

Flexural strength	≥ 15 MPa
Flexural modulus	≥ 0.4 GPa
Shore-D hardness	≥ 40

Uncured material

Viscosity	≤ 2.5 Pa*s
Light sensitivity to fluorescent lamps	≤ 05:00 min



LuxaPrint Gingiva

Light-curing 3D print resin for the additive fabrication of gingival masks

- For gingival masks
- Optimal elasticity
- Highly tear-resistant
- Reliable dimensional stability
- Minimal shrinkage
- Natural look

Perfect depiction of the gingiva
LuxaPrint Gingiva is your expert for precise gingival masks in a fully digital workflow. The 3D print material is dimensionally stable, tear-resistant and offers optimal elasticity. This ensures a lifelike simulation of the later situation in the mouth.
The elastic mask exhibits virtually no shrinkage and reliably shows you how the gingiva appears in the mouth, on the implant, or at the edges of the crown.

Lifelike
The gingival coloured LuxaPrint Gingiva, in shade reproduction, comes very close to the colour of the real gingiva. The natural, aesthetic gingival appearance results in harmony with the ceramic coating.

Whether for implant work or aesthetically challenging crown and bridge constructions:
Discover the precise, fast-printing LuxaPrint Gingiva for your digital workflow.

Recommendations for practical work

Polishing
- No polishing!
- Processing possible using standard plastic milling cutters or scalpel (for cutting)

Technical data

Cured material	
Elastic modulus	≤ 80 MPa
Shore-A hardness	≤ 95

Uncured material	
Viscosity	≤ 5 Pa*s
Light sensitivity to fluorescent lamps	≤ 05:00 min

DMG **Digital Service Centre**

The DMG Service Center Digital

The DMG Service Center Digital is your point of contact for all questions relating to the DMG DentaMile product solutions for the digital workflow

We know dental digitalisation is a complex field. And many of our customers face the challenge of familiarising themselves with new workflows and new technology. At DMG, we would like to provide the best possible assistance in this regard. An important component for this is the establishment of a special service centre.

Personal. Competent.
In the DMG Service Center Digital, you have direct personal contact with an experienced dental technician. Your contact is familiar with the special requirements of digital manufacture due to his or her own working experience. A team of dentists, dental technicians and IT specialists is on hand to help you find solutions, even for tricky questions. The know-how that we provide here includes not only specialist technical knowledge but also awareness of the day-to-day challenges facing the lab, dental clinic and patient.

With our expert personal support, we can help you to work efficiently. Support can be provided by telephone or email, or online via TeamViewer.

How can you get in touch with the service centre?

Tel.: 0800-84 00 66 6 (free of charge from German landlines)
Email: supportdigital@dmg-dental.com

Contact form on the internet:
https://www.dentamile.com/de/service-und-support
Office hours are:
Mon. – Thur. 8:00 AM – 6:00 PM, Fri.: 8:00 AM – 5:00 PM

There to help you in person: Our digital field service experts

Are you looking for skilled regional contacts for the digital workflow? Our specially trained »Digital Applications« field service team will be happy to help.

You can find your personal digital expert for your area on the DMG website **www.dmg-dental.com** under the heading:
Company / Field Service / Team Digital Applications Germany

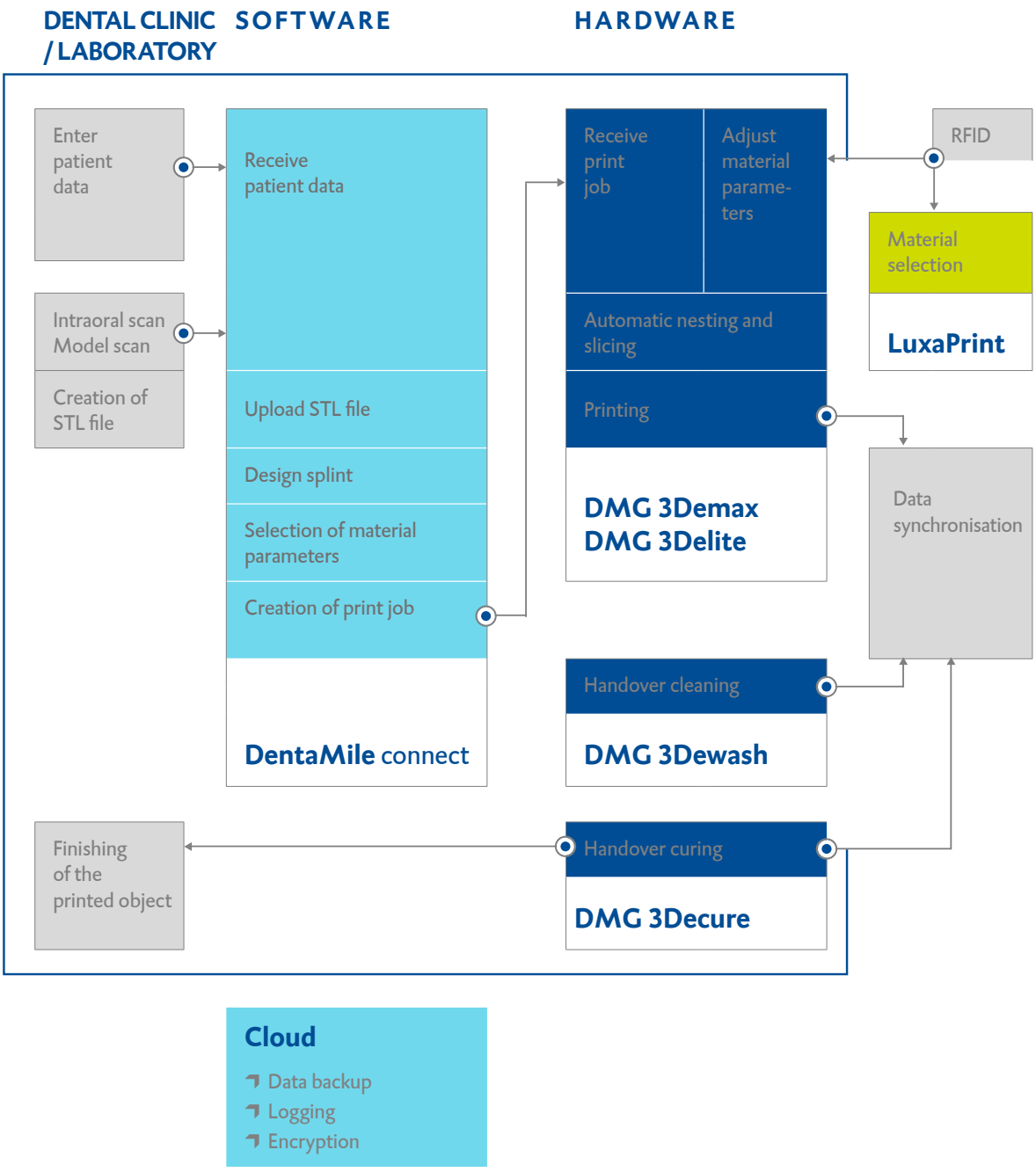
An efficient digital workflow also includes the right service.
We are at your service personally.

Fabricating a splint in the additive digital workflow

The additive digital fabrication process for a splint is extremely complex. There are many parameters that can influence the end result, and these should therefore be strictly observed. Even minor deviations – whether in the software processing, the printing itself, the cleaning or the light exposure – can adversely affect the manufacturing of the splint.

With the DMG DentaMile product solutions, which have been designed with an integrated approach, our aim is to give you the right tool for fabricating a perfectly fitting splint using the digital workflow. Fast. Intuitive. Validated.

The following chart depicts examples of the complete digital workflow for the additive fabrication of a splint: from the scan, the printing and post-processing to the final object.



The DentaMile connect software enables all involved components to be networked both simply and securely; from any location and with no technical barriers. For an efficient validated workflow. The software also provides support in the creation of splints with numerous practical features that make your work even easier.

For example:

- Intuitive, straightforward user guidance
- Virtual fully adjustable articulator
- Visualisation of the networking with the printers 3Demax/3Delite
- Visualisation for simplified and automatic transfer of the design to the printer for production

The DMG Academy

In addition to innovative product solutions and personal service, our offer for you also includes expert training. Under the umbrella of the DMG Academy, we provide a comprehensive training programme for dental clinics and dental laboratories. Needless to say, this includes courses on a wide range of dental 3D printing aspects, in our Dental Training Center in Hamburg or online.

The DMG Dental Training Center
Training under real conditions, with all the spatial and technical options: That's what our fully equipped DMG Dental Training Center in Hamburg offers.
Modern media technology makes it possible to directly transmit from the hands-on room or treatment room.
All standard dental treatments can be performed in the treatment room. The hands-on room offers 10 dental and dental technician workplaces, including a CAD/CAM system and 3D printer.

- Training under practical conditions
- Free of technical or spatial restrictions
- Seminar rooms for up to 100 participants
- Hands-on room with 10 workplaces, fully equipped treatment room, spacious lounge
- Fully equipped for 3D applications
- The latest media technology in all rooms
- Courses for dentists, dental technicians and dental assistants possible
- You can book it for your individual purposes

See for yourself. We look forward to your visit to the DMG Dental Training Center.
Your contact:
training@dmg-dental.com

Continuing education online: Webinars from the DMG Online Academy

Also stay up to date online: That's what the DMG Online Academy webinars are for. A variety of dental topics are regularly covered here. Compact, clear, comprehensible. You can find the current webinar offer on our **websites.**

www.dmg-dental.com

www.dentamile.com

Packaging

Software

DMG DentaMile connect

DMG DentaMile connect – Creator	REF 170904
DMG DentaMile connect – Creator Plus	REF 170905
DMG DentaMile connect – Designer	REF 170906
DMG DentaMile connect – Producer	REF 170907

Hardware

DMG 3Demax

1 DMG 3Demax Drucker	REF 170315
1 DMG 3Demax printer with Force Feedback	REF 170355

DMG 3Delite

1 DMG 3Delite printer	REF 170314
1 DMG 3Delite printer with Force Feedback	REF 170354

Accessories

24 DMG 3Delite build platforms, size S	REF 170362
24 DMG 3Delite build platforms, size L	REF 170363
24 DMG 3Delite material trays, size S	REF 170364
24 DMG 3Delite material trays, size L	REF 170365

DMG Lab5

1 DentaMile Lab5	REF 170352
1 DentaMile Lab5 Pro	REF 170353

DMG 3Dewash

1 DMG 3Dewash cleaning unit	REF 170316

Accessories

3 DMG 3Dewash cleaner swap box	REF 170340
6 Bottles @ 800 ml LuxaPrint Clean IPA	REF 170291
6 Empty bottles @ 800 ml for LuxaPrint Clean IPA	REF 170343

DMG 3Decure

1 DMG 3Decure post-processing unit	REF 170317

Resins

LuxaPrint Model

385 nm / 405 nm

1 Bottle @ 2000 g, shade Beige	REF 170265
1 Bottle @ 1000 g, shade Beige	REF 170201
1 Bottle @ 500 g, shade Beige	REF 170200
1 Bottle @ 200 g, shade Beige	REF 170264
1 Bottle @ 2000 g, shade Grey	REF 170263
1 Bottle @ 1000 g, shade Grey	REF 170293
1 Bottle @ 500 g, shade Grey	REF 170292
1 Bottle @ 200 g, shade Grey	REF 170294
1 Bottle @ 2000 g, shade Ivory	REF 170279
1 Bottle @ 1000 g, shade Ivory	REF 170276
1 Bottle @ 500 g, shade Ivory	REF 170274
1 Bottle @ 200 g, shade Ivory	REF 170272

385 nm

1 Bottle @ 5000 g, shade Transparent	REF 170271
1 Bottle @ 2000 g, shade Transparent	REF 170270
1 Bottle @ 1000 g, shade Transparent	REF 170269
1 Bottle @ 500 g, shade Transparent	REF 170268
1 Bottle @ 200 g, shade Transparent	REF 170267

Resins

LuxaPrint Tray

385 nm / 405 nm

1 Bottle @ 5000 g, shade Turquoise	REF 170261
1 Bottle @ 2000 g, shade Turquoise	REF 170258
1 Bottle @ 1000 g, shade Turquoise	REF 170205
1 Bottle @ 500 g, shade Turquoise	REF 170204
1 Bottle @ 200 g, shade Turquoise	REF 170266

LuxaPrint Ortho

385 nm

1 Bottle @ 5000 g, shade Transparent	REF 170218
1 Bottle @ 2000 g, shade Transparent	REF 170217
1 Bottle @ 1000 g, shade Transparent	REF 170207
1 Bottle @ 500 g, shade Transparent	REF 170206
1 Bottle @ 200 g, shade Transparent	REF 170256

405 nm

1 Bottle @ 1000 g, shade Transparent	REF 170209
1 Bottle @ 500 g, shade Transparent	REF 170208
1 Bottle @ 200 g, shade Transparent	REF 170257

LuxaPrint Ortho Plus

385 nm

1 Bottle @ 5000 g, shade Transparent	REF 170216
1 Bottle @ 2000 g, shade Transparent	REF 170215
1 Bottle @ 1000 g, shade Transparent	REF 170211
1 Bottle @ 500 g, shade Transparent	REF 170210
1 Bottle @ 200 g, shade Transparent	REF 170259

405 nm

1 Bottle @ 1000 g, shade Transparent	REF 170213
1 Bottle @ 500 g, shade Transparent	REF 170212
1 Bottle @ 200 g, shade Transparent	REF 170260

LuxaPrint Ortho Flex

385 nm

1 Bottle @ 5000 g, shade Transparent	REF 170284
1 Bottle @ 2000 g, shade Transparent	REF 170281
1 Bottle @ 1000 g, shade Transparent	REF 170252
1 Bottle @ 500 g, shade Transparent	REF 170250
1 Bottle @ 200 g, shade Transparent	REF 170273

LuxaPrint Gingiva

385 nm

1 Bottle @ 1000 g, shade Pink	REF 170241
1 Bottle @ 500 g, shade Pink	REF 170240
1 Bottle @ 200 g, shade Pink	REF 170278

405 nm

1 Bottle @ 1000 g, shade Pink	REF 170286
1 Bottle @ 500 g, shade Pink	REF 170287
1 Bottle @ 200 g, shade Pink	REF 170288

LuxaPrint Cast

385 nm / 405 nm

1 Bottle @ 1000 g, shade Dark Red	REF 170203
1 Bottle @ 500 g, shade Dark Red	REF 170202
1 Bottle @ 200 g, shade Dark Red	REF 170262

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You can find us on these channels

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