

# 3D PRINTERS

With a wide range of materials to suit every budget and printers to match, we also offer the latest groundbreaking technologies that include additive manufacturing.

#### IN THIS SECTION:

Curing Units	2
Dreve Fotodent <sup>®</sup> DLP Resins	2
KeyPrint <sup>®</sup> DLP Resins	5
NextDent for ceramill® DLP Resins	8
Laser Powder Bed Fusion	11
Miscellaneous	14
Resin Printers	15
Resin Printer Cartridges	17

3D

# **Curing Units**

#### PCU LED N2

High performance light curing unit with LED lamps for final curing of 3D printing materials. Completely cured in an inert gas (nitrogen) atmosphere, allowing the materials to reach their documented mechanical properties and biocompatibility. Featuring a chamber size of 150 x 150 x 65mm and programmable options for ease of use.



Code	Size	Dimensions
D4317	9.3kg	276 x 389 x 110mm

#### **NEXTDENT LC-3DPRINT BOX**

The LC-3DPrint Box is a revolutionary UV light box, suitable for post-curing 3D printing materials. The new LC-3DPrint Box is equipped with 12 UV light bulbs strategically placed inside the box. This ensures that a product is illuminated from all sides, which results in a guick and uniform curing cycle. The spacious interior (260ø x 195mm) allows you to easily cure multiple products at once. In addition, the box has enough space to place an articulator inside.



Code Size AG181800 22kg

Dimensions 440 x 410 x 380mm

### Dreve Fotodent<sup>®</sup> DLP Resins

#### **DREVE FOTODENT® CAST**

Light curing plastic for the production of burnout moulded parts for the dental casting technique.

- Elongation at break 7.5-11%
- Flexural modulus >2000 MPa
- Shore hardness (D) 80-90
- Flexural strength >100 MPa
- Curing frequency 385-405nm
- Colour Red Transparent

Code	Size
D35100	1kg



# Dreve Fotodent<sup>®</sup> DLP Resins

#### **DREVE FOTODENT® DENTURE**

Colour stable, methyl methacrylate free, light curing resin for the production of denture bases. With the added benefit of excellent dimensional stability and accuracy.

- Elongation at break 5-7%
- Flexural modulus >2200 MPa
- Shore hardness (D) 85
- Flexural strength >95 MPa
- Curing frequency 385-405nm
- Colour Pink Transparent

Code	S
D35500	:

#### **DREVE FOTODENT® GINGIVA**

Light curing resin for the manufacture of dental gingival masks. The resin is permanently soft and flexible.

- Shore hardness (D) >80
- Recovery after deformation 100%
- Curing frequency 385nm
- Colour Pink

Co

Code	Size
D35850	1kg



#### **DREVE FOTODENT® GUIDE**

Light curing resin for the manufacture of dental drill guides. Drill guides made from FotoDent® guide are dimensionally stable and biocompatible.

- Elongation at break 10-15%
- Flexural modulus >1700 MPa
- Shore hardness (D) 80-85
- Flexural strength >75 MPa
- Colour Blue Transparent

Code	Desccription	Size
D35600	Curing frequency 405nm	1kg
D35650	Curing frequency 385nm	1kg



ιkq

# Dreve Fotodent<sup>®</sup> DLP Resins

### **DREVE FOTODENT® MODEL**

Light curing resin for the manufacture of dental models for orthodontics and prosthetics. Strong, abrasion, moisture and light resistant.

- Elongation at break 11-15%
- Flexural modulus >1750 MPa
- Shore hardness (D) 80-85
- Flexural strength >85 MPa
- Curing frequency 385/405nm
- Colour Beige Opaque

Code	Size
D35400	1kg

### **DREVE FOTODENT® MODEL2**

Light curing resin for the manufacture of dental master models. Increased strength and resilience over the standard FotoDent<sup>®</sup> model resin.

- Elongation at break 8%
- Flexural modulus >1900 MPa
- Curing frequency 385nm
- Colour Beige Opaque

Code D354002

### **DREVE FOTODENT® SETUP**

Fast building light curing resin for orthodontic setup models. Models are suitable for use with thermoforming technique.

- Elongation at break >5%
- Flexural modulus >2000 MPa
- Flexural strength >95 MPa
- Curing frequency 385/405nm
- Colour Maize Yellow

Code	Size
D35900	1kg





#### **DREVE FOTODENT® SPLINT**

Light curing resin for the production of splints and bruxism devices. Clear and break proof, these splints can be used for long-term use and are biocompatible.

- Elongation at break >20%
- Flexural modulus >600 MPa
- Flexural strength >40 MPa
- Curing frequency 385nm
- Colour Transparent

Code	Size
D35800	1kg

### **DREVE FOTODENT® TRAY**

Biocompatible light curing resin for the manufacture of dental impression trays.

- Flexural modulus >2000 MPa
- Shore hardness (D) 80
- Flexural strength >75 MPa
- Curing frequency 385/405nm
- Colour Green

#### Code D35300

Size 1kg

# **KeyPrint<sup>®</sup> DLP Resins**

#### **KEYCAST™**

For casting of crowns and partial dentures, this material produces a strong, porous-free 3D print that is resistant to fracturing. Burns out easily with no residue, creating detailed and accurate restorations.

- Elongation at break 15.6%
- Youngs modulus 25 MPa
- Tensile strength 16 MPa
- Shore hardness (D) 40
- Shrinkage <2%</p>
- Colour Violet

Code

### 394220000







Size

1kg

3D



Size

1ka

-3D

รกิ

#### **KEYGUIDE™**

Biocompatible material for precise and transparent surgical guides.

- Flexural strength 123 MPa
- Flexural modulus 2710 MPa
- Colour Clear

Code	
394220001	

#### **KEYMASK**<sup>TM</sup>

A flexible pink material that produces gingival masks to simulate the look and feel of gum tissue in restoration planning, perfect for use in conjunction with KeyModel™.

Colour Pink



Size

1kq



# Code Size 394220002 500g

#### **KEYMODEL™**

Produces highly precise models with smooth, hard surfaces for optimal scanning. The beige colour is used for easy visibility of margins and tooth anatomy with low shrinkage, making it perfect for thermoforming.

- Flexural strength 79.5 MPa
- Flexural modulus 2293 MPa
- Tensile strength 51.5 MPa
- Shore hardness (D) 86
- Colour Beige

Code	Size
394220006	1kg



# KeyPrint<sup>®</sup> DLP Resins

#### **KEYORTHOMODEL™**

Designed for high speed prints (150+µm z-axis layers) that are highly accurate, hard and strong. Perfect for thermoforming orthodontic devices.

- Flexural strength 79.6 MPa
- Flexural modulus 2293 MPa
- Tensile strength 51.5 MPa
- Shore hardness (D) 86
- Colour Grey

Code	Size
394220003	1kg

#### **KEYSPLINT HARD™**

Biocompatible material for rigid splint devices.

- Flexural Strength 123 MPa
- Flexural modulus 2710 MPa
- Colour Clear

Code	Size
394220004	1kg



#### KEYSPLINT SOFT™

Biocompatible material for flexible splint devices, the unique formulation balances flexibility and strength in the material. The print is clear and polishable, with some flexibility making it perfect for night guards and retainers.

- Elongation at break 60%
- Youngs modulus 1063 MPa
- Tensile strength 43.7 MPa
- Shore hardness (D) 82
- Flexural strength 39.6 MPa
- Colour Clear

# Code Size 394220005 1kg







35

### NextDent for ceramill<sup>®</sup> DLP Resins

#### **NEXTDENT C&B MFH**

NextDent C&B Micro Filled Hybrid is a biocompatible Class IIa material (stc) developed for crowns and bridges The mix of inorganic fillers and the resin give the material its high strength and wear resistance. It's easy to finish and polish, and can be stained with all types of composite staining kits.

Flexural strength >50 MPa

Code	Description	Size
AGNDMFHBL	BL	1kg
AGNDMFHN1	N1	1kg
AGNDMFHN15	N1.5	1kg
AGNDMFHN2	N2	1kg
AGNDMFHN25	N2.5	1kg
AGNDMFHN3	N3	1kg

#### **NEXTDENT CAST**

NextDent Cast burns out residue free and is suitable for various purposes including support structures, chrome frameworks or orthodontic devices.

- Flexural strength >60 MPa
- Flexural modulus >1500 MPa
- Colour Purple

Code		
AGNDCP		

#### **NEXTDENT DENTURE 3D+**

NextDent Denture 3D+ is a biocompatible Class IIa material suitable for printing all types of removable denture bases. This material has excellent mechanical properties and is comparable to conventional denture base materials.

- Flexural strength >65 MPa
- Flexural modulus >2000 MPa

Code	Description	Size
AGNDDDP	Dark Pink	1kg
AGNDDLP	Light Pink	1kg
AGNDDOP	Pink Opaque	1kg
AGNDDRP	Red Pink	1kg
AGNDDTP	Translucent Pink	1kg



Size 1kg

# NextDent for ceramill<sup>®</sup> DLP Resins

#### NEXTDENT GINGIVA MASK

NextDent Gingiva Mask is a flexible material that can be used in combination with model resins. This makes it possible to print parts of the model that need a certain flexibility, such as gingiva masks on implant models.

- Shore hardness (A) 60-75
- Elongation at break 40-60%
- Colour Pink

Code	Size
AGNDGM	1kg

#### **NEXTDENT MODEL 2.0**

NextDent Model 2.0 is characterised by its incredibly high degree of accuracy, making this material suitable for detailed master prosthodontic and orthodontic models. The models show highly visual details due to colour and opacity.

Shore Hardness (D) >80

Code	Description	Size
AGNDMG	Grey	1kg
AGNDMP	Peach	1kg
AGNDMW	White	1kg



#### **NEXTDENT ORTHO IBT**

NextDent Indirect Bonding Tray is a biocompatible Class I material for orthodontic applications.

- Shore hardness (A) 75-95
- Elongation at break 10-20%
- Colour Clear

Code	Size
AGNDOIBT	1kg







35

### NextDent for ceramill<sup>®</sup> DLP Resins

#### **NEXTDENT ORTHO RIGID**

NextDent Ortho Rigid is a biocompatible Class IIa material developed for the manufacture of splints.

- Flexural strength >50 MPa
- Flexural modulus >1500 MPa
- Colour Transparent Blue

Code	Size
AGNDOR	1kg
AGREEN	THE

#### **NEXTDENT TRAY**

NextDent Tray is a biocompatible Class I material designed to print individual impression trays. The material distinguishes itself through high printing speed and accuracy.

- Flexural strength >50 MPa
- Flexural modulus >1500 MPa

Code	Description	Size
AGNDTB	Blue	1kg
AGNDTP	Pink	1kg

#### **NEXTDENT TRY-IN**

NextDent Try-In is a biocompatible Class I material suitable for printing try-in devices, a baseplate combined with the individual designed tooth setup, to check bite registration and occlusion.

Flexural Modulus >1500 MPa

Code	Description	Size
AGNDT10	T10	1kg
AGNDT11	T11	1kg
AGNDT12	T12	1kg





Lasers are utilised to melt layers of fine metal powder and create complex geometries with incredible precision directly from a CAD file. A wide range of production sizes and innovative features set these machines apart. One such feature — Concept Laser's patented LaserCUSING technology — combines laser and melting to create high precision, mechanically and thermally resilient metallic components layer by layer. With newer materials such as titanium and precious metals being available in powder form, every metal based indication can be laser melted.

#### **MLAB 100**

The Mlab 100 cusing is ideally suited for the production of metal substructures/components and elaborate, detailed indications such as bars and chrome

frameworks. Build envelope: 90 x 90 mm2 (x, y)

- Layer thickness LaserCUSING<sup>®</sup> 15 -50µm
- Production speed LaserCUSING® 1 5 cm3/h (depending on material)
- Requires nitrogen for processing
- 100W laser power

#### LaserCUSING® materials:

- Cobalt chrome
- 18 carat yellow gold
- 18 carat rose gold
- 18 carat red gold
- Platinum
- Silver



Code	Size	Dimensions
GEMLAB	600kg	930 x 705 x 1848mm



-3D

ร์กิ

### **Laser Powder Bed Fusion**

#### **MLAB 100R**

The Mlab 100R cusing is ideally suited for the production of metal substructures/ components and elaborate, detailed indications such as bars and chrome frameworks. The "R" version of the machine allows for the use of reactive materials such as titanium.

- Build envelope: 90 x 90 mm2 (x, y)
- Layer thickness LaserCUSING<sup>®</sup>
   15 50µm
- Production speed LaserCUSING<sup>®</sup>
   1 5 cm3/h (depending on material)
- Requires argon for processing
- 100W laser power
- Requires processing station (sold separately)

#### LaserCUSING<sup>®</sup> materials:

- Cobalt chrome
- Titanium
- 18 carat yellow gold
- 18 carat rose gold
- 18 carat red gold
- Platinum
- Silver



Coue	Size	DIFIEIDIDIS
GEMLABR	700kg	1633 x 705 x 1848mm

# Laser Powder Bed Fusion

#### **MLAB 200R**

Ideally suited for the production of metal substructures/components and elaborate, detailed indications such as bars and chrome frameworks. The "R" version of the machine allows for the use of reactive materials such as titanium. The Mlab 200R is also capable of hybrid manufacturing to create customisable titanium implants and super structures in conjunction with compatible milling machines.

- Build envelope: 100 x 100 mm2 (x, y)
- Layer thickness LaserCUSING<sup>®</sup> 15 50µm
- Production speed LaserCUSING<sup>®</sup> 1 5 cm3/h (depending on material)
- Requires argon for processing
- 200W laser power
- Requires processing station (sold separately)

#### LaserCUSING® materials:

- Cobalt chrome
- Titanium
- 18 carat yellow gold
- 18 carat rose gold
- 18 carat red gold
- Platinum
- Silver

Code	Size	Dimensions
GEMLAB200	800kg	1810 x 820 x 1839mm



Code

013DESP

013DESP-120R

013DESP-125R

### **Miscellaneous**

#### **CENTRI™ 3D SEPARATING SHEETS**

Clear separating sheet that is formed over the 3D printed model to create a surface to build acrylic on. The sheet will not bond to 3D resins or traditional acrylics and is so thin (0.13mm) it will not affect the fit or printed detail.

Description

Square

120mmø

125mmø

-

Pack

50pcs

50pcs

50pcs

#### **NEXTDENT LC-3D MIXER**

The LC-3D Mixer is a roller/tilting stirring device for mixing 3D printing materials before pouring into the resin tray of the printer. Failure to mix the material properly can lead to print failures, colour deviations and they are unlikely to meet their declared specifications.



Code	Size	Dimensions
AG181810	4kg	270 x 410 x 100 mm

## **Resin Printers**

#### **NEXTDENT 5100 FOR CERAMILL®**

Latest DLP printer with a huge array of indications and biocompatible materials. The incredibly fast NextDent 5100 for ceramill<sup>®</sup> has the groundbreaking Figure 4<sup>™</sup> technology that stands for high productivity at first class speed, at a price that is affordable for all dental laboratories. Integrates seamlessly into your Amann Girrbach ceramill<sup>®</sup> system. **Pedestal sold separately**.

#### Indications

- Orthodontic models
- Crown and bridge models
- Long-term temporaries
- Pressable wax restorations
- Surgical guides
- Splints
- Night guards
- Try-ins and dentures

#### Features

- Non-Contact Membrane Digital Light Printing (DLP) technology
- High speed productivity
- Build volume: 124.8 x 70.2 x 196mm
- Fully compatible with industry standard intraoral scanning and software solutions
- Quickly swap and remove resin trays and print platforms
- Touch screen with clear and intuitive guidance
- Material quality guarantee and traceability

#### **Benefits**

- Part of a complete workflow with NextDent biocompatible materials, 3D Sprint software and post-processing
- Accuracy, repeatability, unmatched productivity and low total cost of operations
- Flexibility to address multiple indications with the range of NextDent biocompatible materials
- This complete solution represents industry defining materials and print innovation, dental domain expertise and regulatory compliance in all major markets to revolutionise your workflow

Code	Size	Dimensions
AG181600	34.5kg	426 x 489 x 971mm



### **Resin Printers**

#### PLANMECA CREO™ C5

Planmeca Creo<sup>™</sup> C5 is the combination of **speed and** precision that everyone has been waiting for. A blisteringly fast 3D printer designed specifically for your dental needs, the compact device enables the fabrication of surgical guides, dental models and provisional crowns (coming soon) in groundbreaking time.

Materials for Planmeca Creo™ C5 come in brand new and convenient capsules. They are a completely unique way to dispense high quality 3D printing materials – without any going to waste. The capsules are incredibly easy to attach to the printer and ensure that the valuable material inside them is always utilised efficiently.

Designed by dental experts for the dental trade, the Creo™ C5 has a host of highlights. The materials are medically approved to ensure the repeatability and accountability required in a dental environment

The definition of plug and play, the Creo<sup>™</sup> C5 is made of an aluminium full body construction, with an intuitive LCD touch panel control system.

#### **Specification**

- Plug and play
- Automatic nesting
- No calibration needed
- Superior build speed
- High resolution printing
- Small footprint
- Touch display
- No material wastage
- Safer and cleaner to use

### Detail

- LCD printing
- technology
- Build area 68 x 120mm
- X,Y resolution < 50µm
- Z resolution 25–100µm
  - - 1 x power cable 1 x ethernet cable

Out the Box

1 x basin

1 x build plate

cartridges)

1 x scraper

1 x box of resins (10

1 D

-

Code Size Dimensions PMCR5 32kg 300ø x 500mm



### **Resin Printer Cartridges**

#### PLANMECA CREO™ C5 FOTODENT® CARTRIDGES

The range of Planmeca Creo<sup>™</sup> resins is constantly expanding, please contact us for the latest updates.

### **FOTODENT® MODEL**

Resin for the manufacture of dental models for orthodontics and prosthetics. Strong, abrasion, moisture and light resistant.

- Elongation at break 11-15%
- Flexural modulus >1750 MPa
- Flexural strength >85 MPa
- Colour Beige Opaque

### **FOTODENT® GUIDE**

Resin for the manufacture of dental drill guides. Drill guides made from FotoDent® guide are dimensionally stable and biocompatible.

- Elongation at break 10-15%
- Flexural modulus >1700 MPa
- Flexural strength >75 MPa
- Colour Blue Transparent

Code	Pack
PMCRSGC	10pcs

### **FOTODENT® SETUP**

Fast building resin for orthodontic/base models. Models are suitable for use with thermoforming technique.

- Elongation at break 5%
- Flexural modulus >2000 MPa
- Flexural strength >95 MPa
- Colour Maize Yellow

Code	Pack
PMCRSC	10pcs

Pack

10pcs

-3D

