# **FREEPRINT®**

# HIGHCLASS 3D DENTAL RESINS



>>> PRODUCT CATALOGUE <<< 2023





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# **PRODUCT OVERVIEW**

### 3D PREMIUM RESINS



































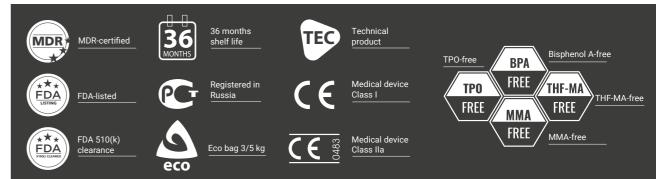


# FREEPRINT® MATRIX

Material type	Application	Color	Characteristics	Medical Devices Class MDR	Medical Devices Class FDA	Medical Devices Class NMPA
TEMP	Temporary crowns & bridges Temporary anterior and posterior tooth restorations  tions	A1, A2, A3	Natural transparency and tooth esthetics     Extremely high construction precision     High mechanical stability     Biocompatible	lla	II	-
CROWN	Permanent crowns, denture teeth Long-term temporary bridges	A1, A2, A3, B1, B3, C2, D3, BL	Natural transparency and tooth esthetics     Highest abrasion resistance	lla	II	-
DENTURE	Removable denture bases     Total prothesis	Pink-transparent, pink	Long-term stable and biocompatible dentures     Fast printing     Perfect fit	lla	II	-
DENTURE IMPACT	Removable denture bases     Total prothesis	Pink-transparent, pink	Long-term stable and biocompatible dentures     High impact resistance     Easy post-processing	in process	in process	-
TRYIN	Individual functional try-ins	A2	Fast, material-saving production     High mechanical stability	in process	ı	-
ORTHO	Surgical guides for implant dentistry     Orthodontic base components	Clear- transparent	Very high mechanical stability & construction precision High printing speed Sterilizable Biocompatible	lla	ı	TEC resin
SPLINT 2.0	Hard splints	Clear- transparent	High mechanical flexural strength and stability     High initial final hardness     Biocompatible	lla	ı	TEC resin
SPLINTMASTER	Flexible splints     Repositioners     Mouthguards     Nightguards	Clear- transparent	Flexible     High tensile strength     High tension-free wearing comfort	in process	in process	-
IBT	Orthodontic transfer trays for positioning brackets	Transparent	Elastic and tear-resistant     Reliable fixing of brackets     Biocompatible	ı	ı	-
TRAY 2.0	Individual impression trays     Functional impression trays     Base resin plates	Green	High dimensional stability, torsional rigidity Max. construction speed Compatible with all impression materials Biocompatible	ı	ı	MED resin

Material type	Application	Color	Characteristics	Medical Devices Class MDR	Medical Devices Class FDA	Medical Devices Class NMPA
MODEL	Dental working and situation models     Control models	lvory, grey, sand	Maximum surface hardness     Dimensional stability     Comfortable haptic     Very good production precision	TEC resin	TEC resin	I
MODEL 2.0	Dental master and working models     Control models	Caramel, grey, light grey, sand	High detail reproduction Maximum surface hardness and dimensional stability Plaster-like apprearance and haptic Very good construction precision	TEC resin	TEC resin	I
MODEL PRO	Dental working and situation models     Control models	Caramel, grey, sand	Plaster-like haptic Good dimensional stability High flexural strengths Easy post-processing	TEC resin	TEC resin	in process
MODEL KFO	Laboratory model preparation     Orthodontic models	White	Plaster-like haptic Distinctive edge and dimension stability Highest surface quality	TEC resin	TEC resin	-
MODEL T	Working models for thermoforming technique and aligner technology	Light blue	High temperature resistance to process-related temperature stress     High edge strength	TEC resin	TEC resin	I
MODEL WW	Working models for thermoforming technique and aligner technology	Blue-transparent	Water-washable     High temperature resistance	TEC resin	TEC resin	-
GINGIVA	Flexible gingival masks for dental models	Gingiva	3D reproduction of functional gingival model segments     Excellent elasticity and tear resistance     Natural gingiva esthetics	TEC resin	TEC resin	ı
CAST 2.0	Dental casting objects for precision casting	Red-transparent	Residue-free burning out High dimensional stability after printing Precise and distortion-free results, even for delicate constructions	TEC resin	TEC resin	ı

MDR Medical Device Regulation EU FDA Food and Drug Administration USA NMPA National Medical Products Administration China



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### FREEPRINT® TEMP

#### **TEMPORARY CROWNS & BRIDGES** ANTERIOR AND POSTERIOR RESTORATIONS

Light-curing formulation for 3D printing of temporary crowns and bridges.

Colors: A1, A2, A3 Wavelength: 385 nm Medical device Class IIa

- High breaking strength
- Short post-processing
- Low material consumption
- MMA- & THF-MA-free













Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 10477 <sup>1)</sup>	MPa	>100
Flexural modulus	DIN EN ISO 10477 <sup>1)</sup>	MPa	> 2300
Water absorption	DIN EN ISO 10477 <sup>1)</sup>	μg/mm³	< 40
Solubility	DIN EN ISO 10477 <sup>1)</sup>	μg/mm³	< 7.5
Hardness	-	Barcol	> 40
Biocompatibility	DIN EN ISO 10993-1 <sup>2)</sup>	-	fulfilled

<sup>&</sup>lt;sup>1)</sup> Crown and veneering resins (in keeping with the standard at room temperature) <sup>2)</sup> Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

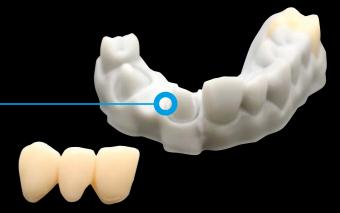
04058	FREEPRINT® TEMP A1	500 g
04059	FREEPRINT® TEMP A2	500 g
04060	FREEPRINT® TEMP A3	500 g
04062	FREEPRINT® TEMP A1	1.000 g
04063	FREEPRINT® TEMP A2	1.000 g
04064	FREEPRINT® TEMP A3	1.000 g

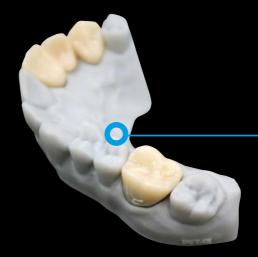




The natural-looking translucent shades (according to VITA classical A1–D4 shade guide) can be esthetically modified for single-crown and bridge restorations.

Temporary restorations provide a high level of oral stability and in conjunction with tempolink®, enable excellent marginal seal during the period of wear.





Easy polishing results in very high surface quality with exceptional abrasion resistance.



### FREEPRINT® CROWN

#### **PERMANENT CROWNS DENTURE TEETH** LONG-TERM TEMPORARY BRIDGES

Light-curing formulation for 3D printing of permanent crowns, denture teeth and long-term temporary bridges.

**Colors:** A1, A2, A3, B1, B3, C2, D3, BL

Wavelength: 385 nm Medical device Class IIa

- Highest fracture stability during the entire wearing time
- Fast, uncomplicated cleaning process
- Easy grinding and polishing due to minimal surface chalking
- MMA- & THF-MA-free









<b>Parameters</b>	Standard	Unit	Results
Flexural strength	DIN EN ISO 10477 <sup>1)</sup>	MPa	>100
Flexural modulus	DIN EN ISO 10477 <sup>1)</sup>	MPa	> 2800
Water absorption	DIN EN ISO 10477 <sup>1)</sup>	μg/mm³	< 40
Solubility	DIN EN ISO 10477 <sup>1)</sup>	μg/mm³	< 7.5
Hardness	-	Barcol	> 50
Biocompatibility	DIN EN ISO 10993-1 <sup>2)</sup>	-	fulfilled

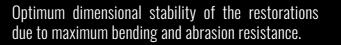
<sup>&</sup>lt;sup>1)</sup> Crown and veneering resins (in keeping with the standard at room temperature)
<sup>2)</sup> Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

FREEPRINT® CROWN A1	500 g 02372	1.000 g 02376
FREEPRINT® CROWN A2	500 g 02378	1.000 g 02415
FREEPRINT® CROWN A3	500 g 02417	1.000 g 02446
FREEPRINT® CROWN B1	500 g 02481	1.000 g 02519
FREEPRINT® CROWN B3	500 g 02645	1.000 g 02758
FREEPRINT® CROWN C2	500 g 02766	1.000 g 02782
FREEPRINT® CROWN D3	500 g 02783	1.000 g 02825
FREEPRINT® CROWN BL	500 g 02845	1.000 g 02884





Wide range of shades with natural esthetics (according to VITA classical A1–D4 shade guide) due to perfectly matched translucency and opacity.







No tendency to discolor thanks to low water absorption.



### FREEPRINT® DENTURE

### REMOVABLE DENTURE BASES TOTAL PROTHESIS

Light-curing formulation for 3D printing of denture bases.

**Colors:** pink-transparent, pink

Wavelength: 385 nm Medical device Class IIa

- Very high surface quality, excellent to polish
- Extremely low shrinkage values compared to PMMA materials
- High wearing comfort
- MMA- and THF-MA-free, tasteless













Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-1 <sup>1)</sup>	MPa	> 110
Flexural modulus	DIN EN ISO 20795-1 <sup>1)</sup>	MPa	> 2500
Water absorption	DIN EN ISO 20795-1 <sup>1)</sup>	μg/mm³	< 32
Solubility	DIN EN ISO 20795-1 <sup>1)</sup>	μg/mm³	< 1.6
Hardness	-	Shore D	>83
Biocompatibility	DIN EN ISO 10993-1 <sup>2)</sup>	-	fulfilled

<sup>&</sup>lt;sup>1)</sup> Dentistry: Denture resins (in keeping with the standard at room temperature)



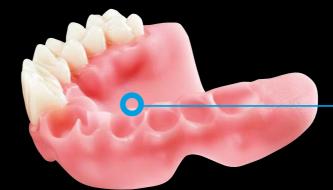
FREEPRINT® DENTURE pink-transparent 500 g 02060
FREEPRINT® DENTURE pink-transparent 1.000 g 02040 5 kg 03518
FREEPRINT® DENTURE pink 1.000 g 04092 5 kg 03298



Natural aesthetics and a light transparency enable alignment with natural gingival color.

The rigid denture base withstands high loads in the oral environment.





Validated with the VITA VIONIC VIGO System. Fully compatible with prefabricated, 3D printed (FREEPRINT® CROWN) or milled teeth.



<sup>&</sup>lt;sup>2)</sup> Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

### FREEPRINT® DENTURE IMPACT

### REMOVABLE DENTURE BASES TOTAL PROTHESIS

Light-curing formulation for 3D printing of impact resistant denture bases.

**Colors:** pink-transparent, pink

Wavelength: 385 nm Medical device Class IIa

Increased impact strength

- Very high wearing comfort
- Quick processing, easy to polish
- MMA-, THF-MA- and TPO-free, tasteless

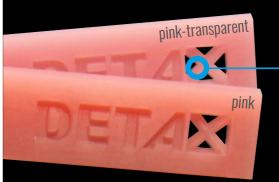


<b>Parameters</b>	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-1 <sup>1)</sup>	MPa	> 65
Flexural modulus	DIN EN ISO 20795-1 <sup>1)</sup>	MPa	> 2000
Water absorption	DIN EN ISO 20795-1 <sup>1)</sup>	μg/mm³	< 32
Solubility	DIN EN ISO 20795-1 <sup>1)</sup>	μg/mm³	< 1.6
Hardness	-	Shore D	> 80

<sup>&</sup>lt;sup>1)</sup> Dentistry: Denture resins (in keeping with the standard at room temperature)



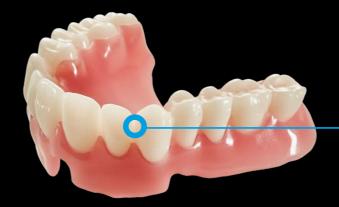
\*approx. available 2024



Colors and transparency optimally adapted to classic denture resins.

The increased impact strength provides extremely high fracture stability and ensures lasting functionality over the entire wearing time.





Compatible with fabricated, printed (FREEPRINT® CROWN) or milled teeth.



<sup>04436</sup> FREEPRINT® DENTURE IMPACT pink-transparent\* 1.000 g
04437 FREEPRINT® DENTURE IMPACT pink\* 1.000 g

### FREEPRINT® TRYIN

#### INDIVIDUAL FUNCTIONAL TRY-INS

Light-curing formulation for 3D printing of individual functional try-ins of digitally manufactured denture bases.

Color: A2

Wavelength: 385 nm Medical device Class IIa

- Fast, material-saving production of functional try-ins
- Easy control of phonetics
- Easy to process

Hardness

MMA- & THF-MA-free



> 85





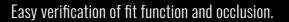


Shore D

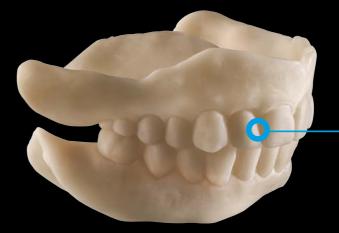




Fast and easy additive manufacturing of functional try-ins of individual tooth setups.







Functional try-ins for complete and partial dentures, in esthetically pleasing tooth shade.



04101 FREEPRINT® TRYIN A2\*

\*approx. available Q3/23

1.000 g

<sup>&</sup>lt;sup>1)</sup> Resins: Determination of flexural strength (in keeping with the standard at room temperature)

### FREEPRINT® ORTHO

#### SURGICAL GUIDES, AUTOCLAVABLE **ORTHODONTIC BASE COMPONENTS**

Light-curing formulation for 3D printing of base parts for orthodontic appliances, surgical guides and X-ray templates.

**Color:** clear-transparent Wavelength: 385 nm Medical device Class IIa

- Validated for autoclave sterilization according to EN ISO 17664!
- Very high mechanical stability
- Compatible with FREEFORM® fixgel
- MMA-free, tasteless















1.000 g 5 kg

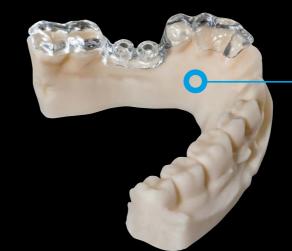
Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-2 <sup>1)</sup>	MPa	> 75
Flexural modulus	DIN EN ISO 20795-2 <sup>1)</sup>	MPa	> 1650
Water absorption	DIN EN ISO 20795-2 <sup>1)</sup>	μg/mm³	< 32
Solubility	DIN EN ISO 20795-21)	μg/mm³	< 5
Hardness	-	Shore D	>82
Biocompatibility	DIN EN ISO 10993-1 <sup>2)</sup>	-	fulfilled

FREEPRINT® ORTHO

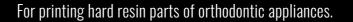
FREEPRINT® ORTHO

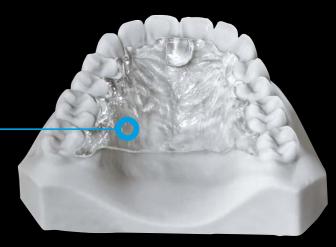






The crystal-clear material allows reliable control of the working area during drilling.







Precise positioning and fixation of the drill sleeves enable safe positioning for the patient.



03989

04323

<sup>&</sup>lt;sup>1)</sup> Dentistry: Orthodontic resins (in keeping with the standard at room temperature)
<sup>2)</sup> Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

### FREEPRINT® SPLINT 2.0

#### HARD SPLINTS

Light-curing formulation for 3D printing of hard splints.

**Color:** clear-transparent Wavelength: 385 nm Medical device Class IIa

- Easy to polish
- Highest bending & breaking strength
- High accuracy of fit
- MMA- and THF-MA-free, tasteless











<b>Parameters</b>	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-2 <sup>1)</sup>	MPa	> 80
Flexural modulus	DIN EN ISO 20795-2 <sup>1)</sup>	MPa	> 2000
Water absorption	DIN EN ISO 20795-2 <sup>1)</sup>	μg/mm³	< 32
Solubility	DIN EN ISO 20795-2 <sup>1)</sup>	μg/mm³	< 5
Hardness	-	Shore D	> 82
Biocompatibility	DIN EN ISO 10993-1 <sup>2)</sup>	-	fulfilled







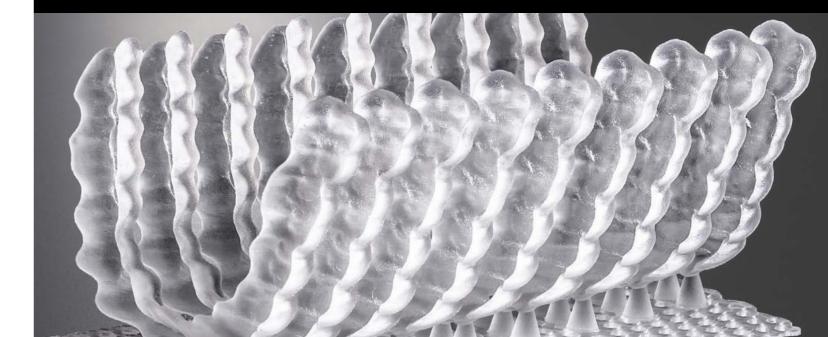
Hard occlusal splint, rigid type, with high efficiency.







Compatible with FREEFORM® plast for additional occlusal design in practice.



<sup>&</sup>lt;sup>1)</sup> Dentistry: Orthodontic resins (in keeping with the standard at room temperature)
<sup>2)</sup> Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

### FREEPRINT® SPLINTMASTER

#### **FLEXIBLE SPLINTS REPOSITIONERS MOUTHGUARDS NIGHTGUARDS**

Light-curing formulation for 3D printing of flexible splints, repositioners, mouthguards and nightguards. In two levels of flexibility: Taff & Flex.

**Color:** clear-transparent Wavelength: 385 nm Medical device Class Ila

- Flexible and fracture-resistant
- High, tension-free wearing comfort
- Easy to polish
- MMA-, THF-MA- and TPO-free, tasteless



Parameters	Standard	Unit	Resi taff	ults flex
Tensile strength	DIN EN ISO 527-1 <sup>1)</sup>	MPa	> 40	> 25
Tensile elongation	DIN EN ISO 527-1 <sup>1)</sup>	-	> 20 %	> 50 %
Tear propagation resistance	DIN EN ISO 34-1 <sup>2)</sup>	N/mm	> 140	> 110
Hardness	-	Shore D	> 75	> 65
Water absorption	DIN EN ISO 20795-23)	μg/mm³	< 32	< 32
Solubility	DIN EN ISO 20795-2 <sup>3)</sup>	μg/mm³	< 5	< 5

- <sup>1)</sup> Resins: Determination of tensile strength (in keeping with the standard at room temperature)
  <sup>2)</sup> Thermoplastic elastomers: Determination of tear propagation resistance (in keeping with the standard at room temperature)



04433	FREEPRINT® SPLINTMASTER TAFF*	1.000 g
04432	FREEPRINT® SPLINTMASTER FLEX*	1.000 g

\*approx. available Q4/23



Clear-transparent, flexible splints for pleasant wearing comfort.

Wide range of applications, e.g. bite splints, mouth guards, bite plates.





The flexible splints are extremely easy to maintain, clean and polish.



<sup>&</sup>lt;sup>3)</sup> Dentistry: Orthodontic resins (in keeping with the standard at room temperature)

### FREEPRINT® IBT

### TRANSFER TRAY BRACKET POSITIONING

Light-curing formulation for 3D printing of flexible orthodontic transfer trays for positioning brackets.

Color: transparent
Wavelength: 385 nm
Medical device Class I

- Soft-elastic
- Secure bracket mounting
- Easy to remove from the mouth
- Bisphenol A-, MMA- and THF-MA-free









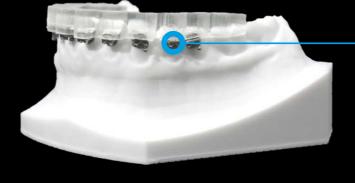


Parameters	Standard	Unit	Results
Tensile strength	DIN EN ISO 527-1 <sup>1)</sup>	MPa	>8
Tensile elongation	DIN EN ISO 527-1 <sup>1)</sup>	-	> 60 %
Tear propagation resistance	DIN EN ISO 34-1 <sup>2)</sup>	N/mm	> 35
Hardness	-	Shore A	>90
Biocompatibility	DIN EN ISO 10993-1 <sup>3)</sup>	_	fulfilled

- <sup>1)</sup> Resins: Determination of tensile strength (in keeping with the standard at room temperature)
- <sup>2)</sup> Thermoplastic elastomers: Determination of tear propagation resistance (in keeping with the standard at room temperature)
- <sup>3)</sup> Biological assessment of medical devices Part 1: Assessment and testing in the context of a risk management system

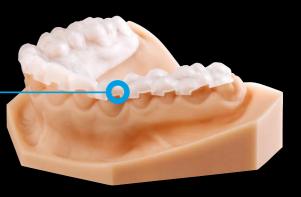


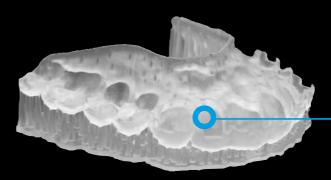
04248	FREEPRINT® IBT	500 g
04249	FREEPRINT® IBT	1.000 g



Easy, precise positioning and application of the brackets due to the indirect bonding technique.

The transparent bracket transfer templates allow easy visual control.





The high tensile strength and flexibility provide hassle-free placement and subsequent removal of the templates in one single work step.



### FREEPRINT® TRAY 2.0

#### INDIVIDUAL IMPRESSION TRAYS **FUNCTIONAL TRAYS BASE PLATES**

Light-curing formulation for 3D printing of individual impression and functional trays, base plates.

Color: green

Wavelength: 380 - 405 nm Medical device Class I

- High bending & breaking strength
- Low viscosity
- Printable with 200 μm layer thickness
- MMA- and THF-MA-free, tasteless







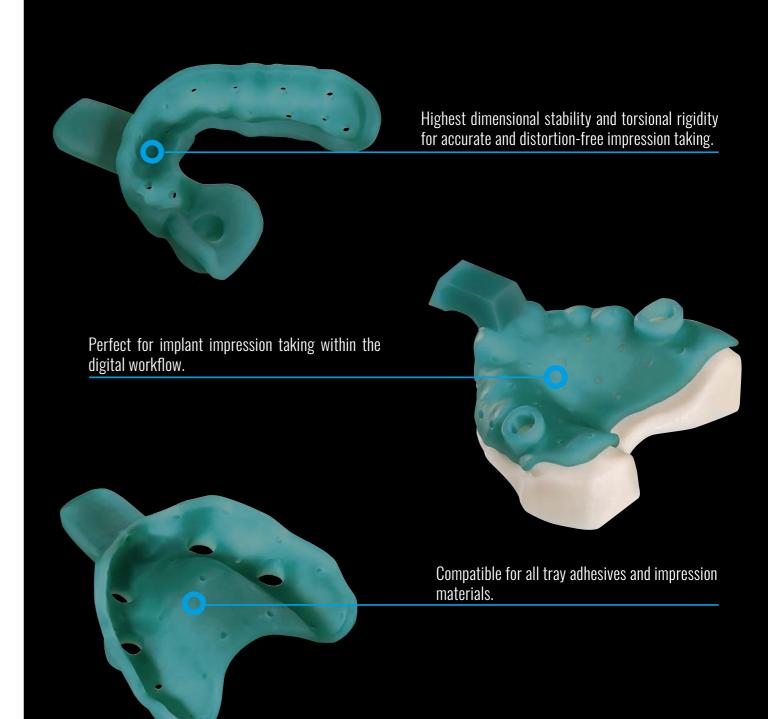




Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178 <sup>1)</sup>	MPa	> 90
Flexural modulus	DIN EN ISO 178 <sup>1)</sup>	MPa	> 1900
Hardness	-	Shore D	> 84
Biocompatibility	DIN EN ISO 10993-1 <sup>2)</sup>	-	fulfilled









<sup>&</sup>lt;sup>1)</sup> Resins: Determination of flexural strength (in keeping with the standard at room temperature)
<sup>2)</sup> Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

### FREEPRINT® MODEL

MODEL PRODUCTION
WORKING MODELS
SITUATION MODELS
CONTROL MODELS

Light-curing formulation for 3D printing of dental master and working models.

**Colors:** ivory, gray, sand **Wavelength:** 380 – 405 nm

**Technical product** 

- Fast-printing
- Maximum surface hardness
- Dimensionally stable
- Bisphenol A- & MMA-free









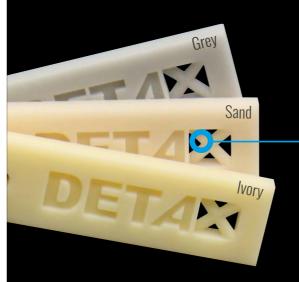


Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178 <sup>1)</sup>	MPa	> 70
Flexural modulus	DIN EN ISO 178 <sup>1)</sup>	MPa	> 1500
Hardness	-	Shore D	> 80

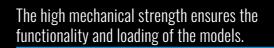
<sup>&</sup>lt;sup>1)</sup> Resins: Determination of flexural strength (in keeping with the standard at room temperature)

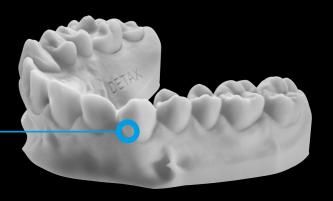


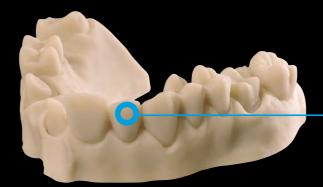




Haptics and stability meet the high requirements in model making.







Perfect detail reproduction due to plaster-like colors: grey, ivory, sand.



### FREEPRINT® MODEL 2.0

MODEL PRODUCTION
MASTER MODELS
WORKING MODELS
CONTROL MODELS

Light-curing formulation for 3D printing of dental models, master models, situation and orthodontic models.

Colors: caramel, grey, light grey, sand, white

**Wavelength:** 380 – 405 nm

**Technical product** 

- High detail reproduction
- Shortened post-processing
- Plaster-like appearance & haptics
- MMA- & THF-MA-free









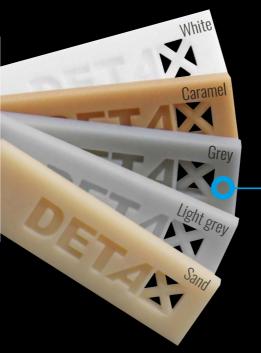
Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178 <sup>1)</sup>	MPa	> 80
Flexural modulus	DIN EN ISO 178 <sup>1)</sup>	MPa	> 1700
Hardness	-	Shore D	>80

<sup>1)</sup> Resins: Determination of flexural strength (in keeping with the standard at room temperature)

Caramel	1.000 g	02850	5 kg 04015
Grey	1.000 g	02177	5 kg 04106
Light grey	1.000 g	02099	5 kg 04107
Sand	1.000 g	02128	5 kg 04117
White*	1.000 g	02148	5 kg 04118

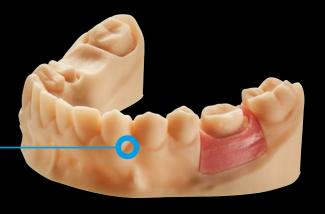


nt THF-MA free



Wide range of plaster-like colors: white, caramel, grey, light grey, sand.

The distinct edge stability and abrasion resistance make the models comparable to conventional plaster models in terms of handling.





The extremely durable model surfaces are functionally highly durable.



### FREEPRINT® MODEL PRO

MODEL PRODUCTION
WORKING MODELS
SITUATION MODELS
CONTROL MODELS

Light-curing formulation for 3D printing of dental master and working models.

**Colors:** caramel, grey, sand **Wavelength:** 380 – 405 nm

**Technical product** 

- Fast-printing
- Maximum surface hardness
- Dimensionally stable
- Bisphenol A-, MMA-, THF-MA and TPO-free

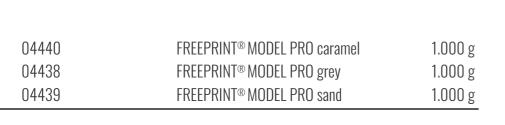








<sup>&</sup>lt;sup>1)</sup> Resins: Determination of flexural strength (in keeping with the standard at room temperature)

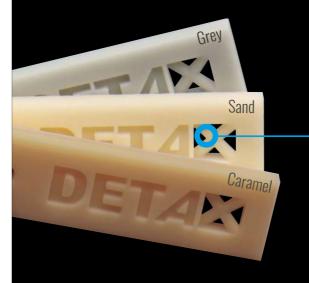






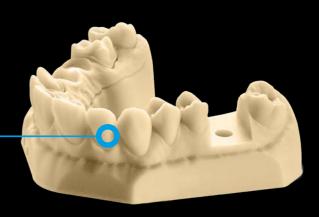
REEPRINT

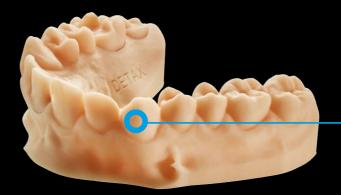
DETAX



The technical setting of the material meets all requirements for color and its appearance, as well as the haptics.

The further increase in mechanical strength contributes to optimum functionality.





The formulation has been revised according to the latest REACH Regulation.



### FREEPRINT® MODEL T

#### **MODEL PRODUCTION** THERMOFORMING TECHNIQUE

Light-curing formulation for 3D printing of dental models for the thermoforming technique.

Color: light blue

Wavelength: 380 – 405 nm

Technical product

- High temperature resistance
- Maximum edge strength
- Plaster-like appearance & haptics
- Precise detail reproduction
- MMA-free



1.000 g

5 kg







Parameters	Standard	Unit	Results
Working temperature for thermoforming	ng sheets	°C	≤ 195
Flexural strength	DIN EN ISO 178 <sup>1)</sup>	MPa	>80
Flexural modulus	DIN EN ISO 178 <sup>1)</sup>	MPa	> 1700
Hardness	-	Shore D	>83

<sup>&</sup>lt;sup>1)</sup> Resins: Determination of flexural strength (in keeping with the standard at room temperature)

FREEPRINT® MODEL T

FREEPRINT® MODEL T



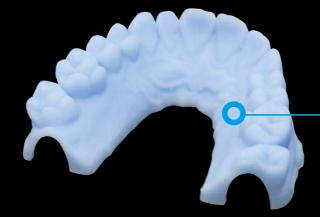




Maximum surface hardness and edge strength of the models.

The stability of the models is preserved even during heating in thermoforming.





The pronounced intrinsic stability enables manufacture of hollow thermoformed models.



02332

04322

### FREEPRINT® MODEL WW

### MODEL PRODUCTION THERMOFORMING TECHNIQUE

Light-curing formulation for 3D printing of dental models for the thermoforming technique.

Color: blue-transparent Wavelength: 380 – 405 nm Technical product

- Water-washable
- No use of solvent necessary
- High temperature resistance
- Cost-efficient model production
- MMA- & THF-MA-free







Parameters	Standard	Unit	Results
Working temperature for thermoform	ing sheets	°C	≤ 195
Flexural strength	DIN EN ISO 1781)	MPa	>85
Flexural modulus	DIN EN ISO 178 <sup>1)</sup>	MPa	>1800
Hardness	_	Shore D	>82
			0

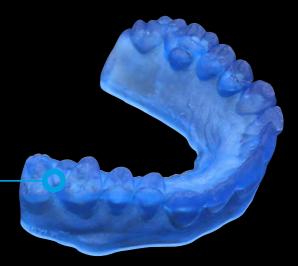
1) Resins: Determination of flexural strength (in keeping with the standard at room temperature)

FREEPRINT® MODEL WW





The water-washable material meets all requirements for digitally produced models in thermoforming.



The stability of the models is not affected by the heat.



The high edge strength and good intrinsic stability of the material allow production of hollow thermoformed models.



03105

# FREEPRINT® GINGIVA

#### **GINGIVAL MASKS**

Light-curing formulation for 3D printing of flexible gingival masks for dental models.

**Color:** gingiva

Wavelength: 380 – 405 nm

Technical product

- Excellent elasticity and tear resistance
- Natural gingiva esthetics
- Dimensionally stable
- No subsequent shrinkage
- Bisphenol A-, MMA- and THF-MA-free





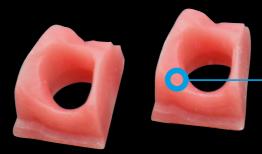


Parameters	Standard	Unit	Results
Tensile strength	DIN EN ISO 527-1 <sup>1)</sup>	MPa	> 3
Tensile elongation	DIN EN ISO 527-1 <sup>1)</sup>	_	> 90 %
Hardness	-	Shore A	>70

<sup>1)</sup> Resins: Determination of tensile strength (in keeping with the standard at room temperature)



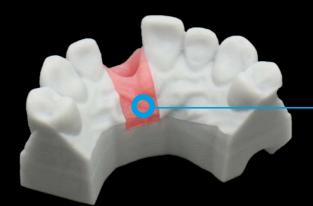




Permanently ductile, even during long storage.

No annoying or unpleasant odors from the completed gingival masks.





For 3D reproduction of functional gingival model segments in a digital workflow, in combination with FREEPRINT® MODEL.



### FREEPRINT® CAST 2.0

#### **CASTING OBJECTS**

Light-curing formulation for 3D printing of high-precision casting objects.

**Color:** red-transparent

Wavelength: 380 – 405 nm

Technical product

- Residue-free burning out
- Distortion-free and precise, even for delicate constructions
- Suitable for phosphate-bonded embedding materials
- Low viscosity for fast cleaning
- MMA & THF-MA free







Parameters	Standard	Unit	Results			
Flexural strength	DIN EN ISO 178 <sup>1)</sup>	MPa	>70			
Flexural modulus	DIN EN ISO 178 <sup>1)</sup>	MPa	> 1700			
Bakeout temperature	-	_	1 h @ 800 °C			
Combustion residue	-	-	< 0.1%			

 $<sup>^{1)}\</sup>mbox{Resins} : \mbox{Determination of flexural strength (in keeping with the standard at room temperature)}$ 







Reliable precision for cast objects.

Any corrections or repairs after printing are possible with easyform gel LC.





Distortion-free and stable, even with delicate frameworks. Enables direct FIT CHECK.



### PROCESS VALIDATION PRINTER

CERTIFIED VALIDATED RELIABLE











							_	385 nm												405 nm					
Qualification  ✓ Done  ☐ In process  On request	ASIGA Max / Mini	ASIGA Pico2	ASIGA PRO2	ASIGA PRO 4K	MICROLAY Versus	Miicraft Prime / Hyper Series	Miicraft Ultra Series	PrograPrint PR5	Miloraft Profession / Advance Series	Rapid shape D10 / D20 Series	Rapid shape D30 / D40 Series	Rapid shape D70 /D90 Series	Rapid shape	Straumann P series	W2P	Ackuretta	Flashforge Hunter	Microlay Eve Pro	Moonray S100	Phrozen Sonic 4K / XL	Prusa Research MEDICAL ONE	Shining 3D Accu-Fab D1s	Shining 3D Accu-Fab L4D	Sprintray Pro S	Dentsply Sirona Primeprint
TEMP	~	~	~	~	~	~	~	~	~	~	~	~	•	~	~	•									
CROWN	~	•	•	~	~					~	~		•	~		•	•	•	•	•	•	•	•	•	
DENTURE	~	~	~	~	~	~	~		~	~	~			~	~	•									
DENTURE IMPACT		•	•		•	•	•		•			•	•			•	•	•	•	•	•	•	•	•	
ORTHO	~	~	~	~	~	~	~		~	~	~	~	•	~	~	•		•	•	•	•	•	•	•	
SPLINT 2.0	~	~	~	~	~	~	~		~	~	~		•	~	~	•	•	•	•	•	•	•	•	•	
SPLINTMASTER  Q4/23													•			•	•	•	•	•	•	•	•	•	
IBT	~	~	~	~	~	~	~		~	~	~		•	~	~	•	•	•	•	•	•	•	•	•	
TRAY 2.0	~	~	~	~	~	~	~		~	~	~		•	~	~	•	•		•					•	
TRYIN Q3/23	~	~	~	~	~	~	~		~	~	~	~	•	~	~	•	•	•	•	•				•	
MODEL	~	~	~	<b>*</b>	<b>~</b>	~	~		~	~	<b>~</b>	<b>~</b>	~	~	~		~	~	~	<b>~</b>	~	~	~	~	
MODEL 2.0	~	~	~	~	~	~	~		~	~	~			~	~		~	~	~	~				~	
MODEL PRO																•	•	•	•	•	•	•	•	•	
MODEL T	~	~	~	~	~	~	~		~	~	~	~		~	~		~	~	~	~		~	~	~	
MODEL WW	~	~	~	~													~	~	~	~	•	•	•	~	
GINGIVA	~	~	~	~	~	~	~	~	~	~	~		•	~	~		~	~	~	~		~	~	~	
CAST 2.0	~	~	~	~	~	~	~	~	~	~	~		•	~	~		~	~	~	~		~	~	~	
Primeprint (made by DETAX)																									~

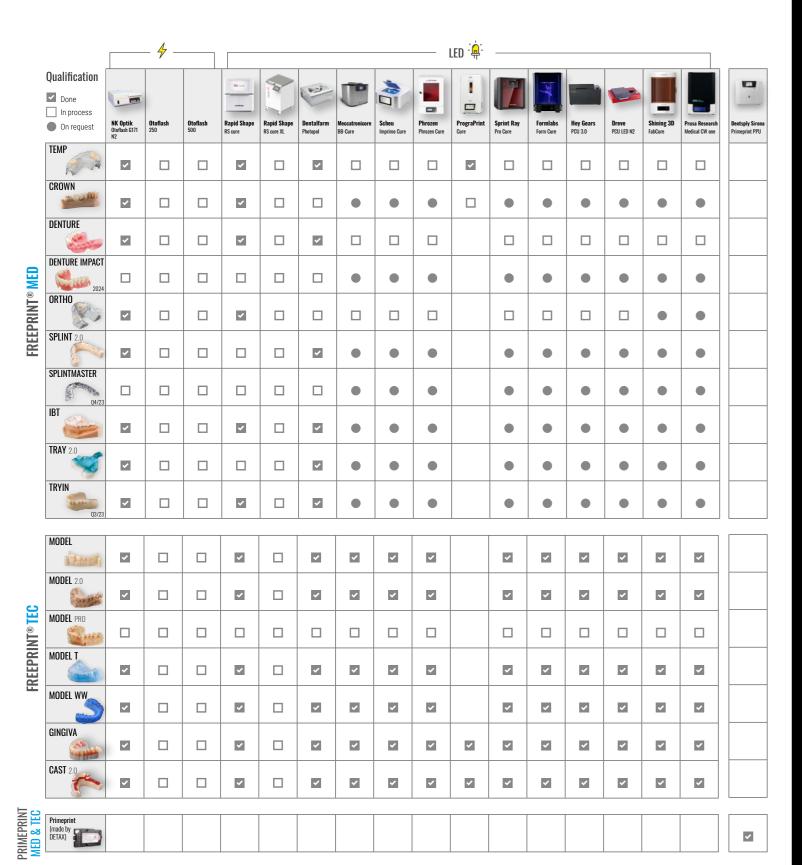
PRIMEPRINT MED & TEC

FREEPRINT® TEC

FREEPRINT® MED

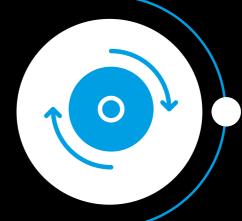
version: March 06, 2023

### PROCESS VALIDATION CURING DEVICES



version: March 06, 2023

# GOOD TO KNOW ...

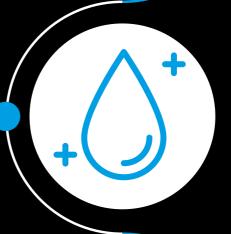


#### **BOTTLE ROLLER**

By using a roller mixer, optimum mixing of the material is achieved. thus preventing possible segregation. The Eco Bags can be homogenized with an appropriate attachment.

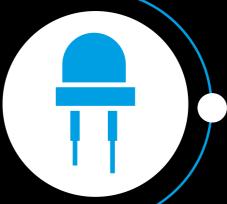


The best cleaning results of the production jobs are achieved when pre- and post-cleaning are carried out in separate tanks in an ultrasonic unit. It is recommended to clean the bores/ openings with compressed air after cleaning with isopropanol.



#### **POST-CURING UNIT**

The post-curing units recommended in the instructions for use ensure optimum through-hardening and surface curing, thus a biocompatible end product, and ensure high color brilliance and transparency, without discoloration.



#### **DETAX EXPERTS**@





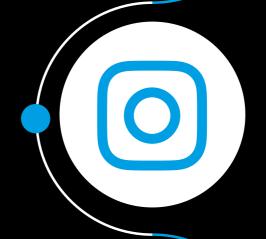










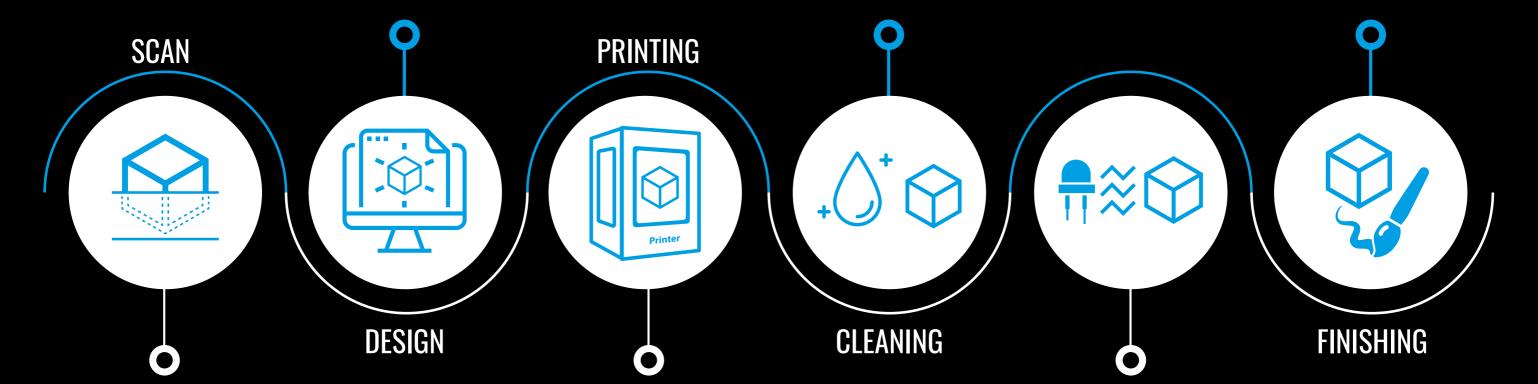


# 3D WORKFLOW

After completion of the design (CAD), the slicing software prepares the objects for printing. The slicing process creates the individual layers to be exposed. The software serves as a translator between the 3D model and the 3D printer.

After printing, the non-polymerized material on the surface must be removed so as to leave no residue before the final post-exposure. Drain the production job off in the printer, then carry out a 2-stage secondary cleaning with isopropanol in an ultrasonic device. Cleaning can also be carried out in suitable separate devices.

Finally, the surface is finished as required, e.g. mechanically polished. Perfect fit, optimal product properties and reliable reproduction are the results of a validated and certified process.



Digitization of the patient's initial situation is the basis for the digital manufacturing process. It is done using an intraoral scanner, or by scanning the model. Using the data thus generated, a three-dimensional surface structure is generated, which can then be transferred to a design software.

For a precise print job, the setting parameters of the corresponding material in the printer are necessary. These data are used not only to control the exposure process for the material, but also to determine the corresponding movement mechanics of the printers. Coordination of these processes is the prerequisite for successful DLP/LCD printing of challenging structures.

The properties of the final product depend, among other things, on the finishing process. Correct post-exposure is very important for biocompatibility. To ensure that the printed structures are fully cured, post-exposure in devices with LED lamps under vacuum or xenon flashlight in an inert gas atmosphere is recommended.

# #HELLO ECOBAG



In addition to the 1-kg standard bottles, many FREEPRINT® materials are offered in practical 3- or 5-kg Eco Bags. The bags are perfect for frequent users and are handy to use: The 2 handles (top and bottom) make it easy to fill the printer tray. Highly pigmented materials can be homogenized with a roller mixer (with appropriate attachment). The empty bag can be rolled up to a tiny ball, thus taking up much less waste volume and generating less plastic waste. 🖂



### >>> PRODUCTCLIPS "HOW TO"































## **CERTIFICATION**



All FREEPRINT® Class IIa resins have been MDR-certified since October 2020. Thus, DETAX 3D materials are among the first of its sector with MDR certification.



The 3D premium printing materials FREEPRINT® CROWN, FREEPRINT® TEMP and FREE-PRINT® DENTURE have received FDA 510(k) clearance.



DETAX printing resins have a premium shelf life of 36 months. The opaque materials are characterized by a particularly low sedimentation tendency during this period.















