FREEPRINT®

HIGHCLASS 3D DENTAL RESINS

PRODUCT CATALOGUE 2023

DETAX
HIGHEND MEDICAL MATERIALS

DETAX MDR CERTIFIED

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Total prothesis

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Removable denture bases
Total prothesis

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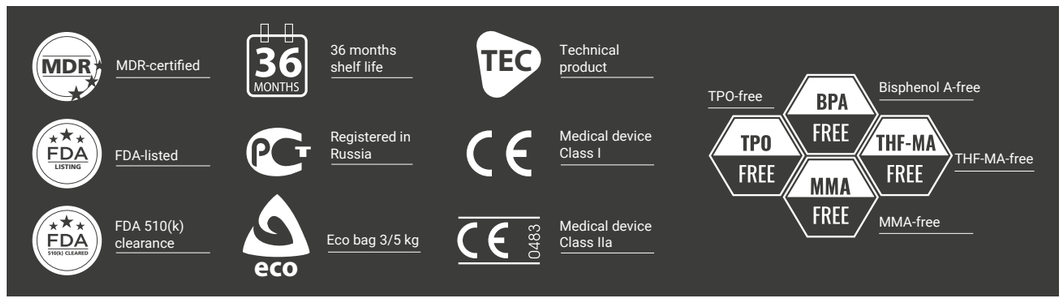
FREEPRINT® MATRIX

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	A1, A2, A3	• Natural transparency and tooth esthetics • Extremely high construction precision • High mechanical stability • Biocompatible	IIa	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	IIa	II	–
 DENTURE	• Removable denture bases • Total prothesis	Pink-transparent, pink	• Long-term stable and biocompatible dentures • Fast printing • Perfect fit	IIa	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	IIa	I	–
 ORTHO	• Surgical guides for implant dentistry • Orthodontic base components	Clear-transparent	• Very high mechanical stability & construction precision • High printing speed • Sterilizable • Biocompatible	IIa	I	TEC resin
 SPLINT 2.0	• Hard splints	Clear-transparent	• High mechanical flexural strength and stability • High initial final hardness • Biocompatible	IIa	I	TEC resin
 SPLINTMASTER	• Flexible splints • Repositioners • Mouthguards • Nightguards	Clear-transparent	• Flexible • High tensile strength • High tension-free wearing comfort	IIa	II	–
 IBT	• Orthodontic transfer trays for positioning brackets	Transparent	• Elastic and tear-resistant • Reliable fixing of brackets • Biocompatible	I	I	–
 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	I	I	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	Ivory, 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 appearance 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	I
 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	I

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



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

MMA FREE
THF-MA FREE

MDR · FDA 510(k) CLEARED · 36 MONTHS · PCT · CE 0483

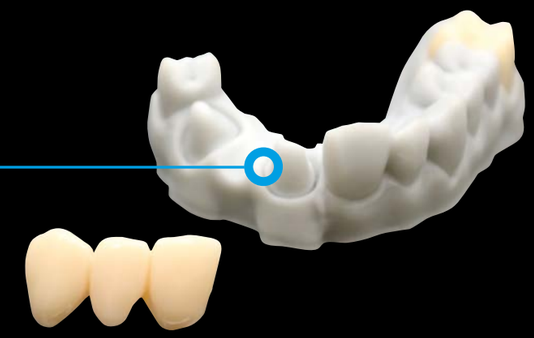
Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 10477[1)]	MPa	> 100
Flexural modulus	DIN EN ISO 10477[1)]	MPa	> 2300
Water absorption	DIN EN ISO 10477[1)]	µg/mm³	< 40
Solubility	DIN EN ISO 10477[1)]	µg/mm³	< 7.5
Hardness	–	Barcol	> 40
Biocompatibility	DIN EN ISO 10993-1[2)]	–	fulfilled

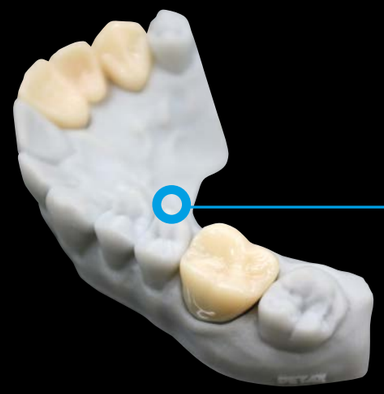
[1)] Crown and veneering resins (in keeping with the standard at room temperature)
[2)] Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

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

THF-MA FREE
MMA FREE

MDR · FDA 510(k) CLEARED · CE 0483

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

[1)] Crown and veneering resins (in keeping with the standard at room temperature)
[2)] 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.

Optimum dimensional stability of the restorations due to maximum bending and abrasion resistance.

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

THF-MA FREE

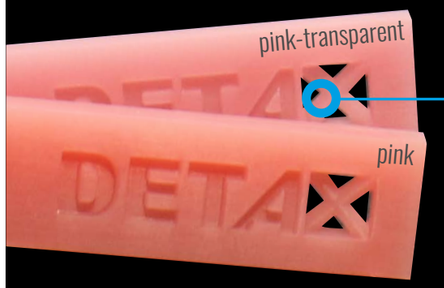
MMA FREE

MDR · FDA 510(k) CLEARED · 36 MONTHS · eco · CE 0483

Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-1[1)]	MPa	> 100
Flexural modulus	DIN EN ISO 20795-1[1)]	MPa	> 2500
Water absorption	DIN EN ISO 20795-1[1)]	µg/mm³	< 32
Solubility	DIN EN ISO 20795-1[1)]	µg/mm³	< 1.6
Hardness	–	Shore D	> 83
Biocompatibility	DIN EN ISO 10993-1[2)]	–	fulfilled

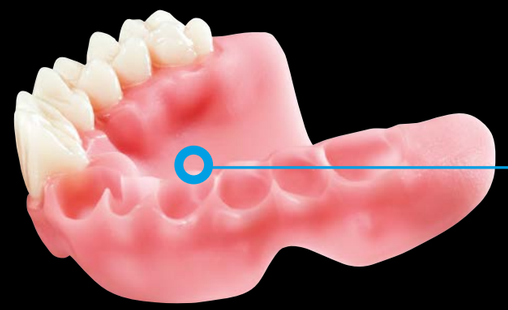
[1)] Dentistry: Denture resins (in keeping with the standard at room temperature)
[2)] Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

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.

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

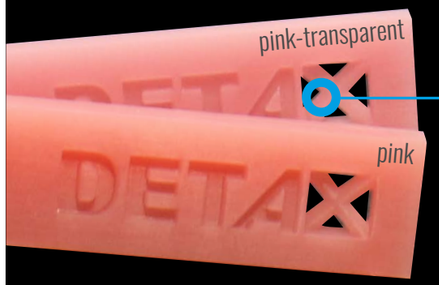
TPO FREE
THF-MA FREE
MMA FREE

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

[1)] Dentistry: Denture resins (in keeping with the standard at room temperature)

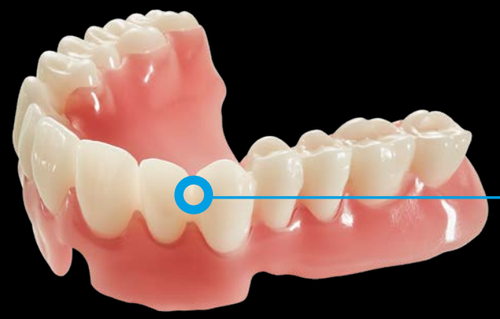
04436	FREEPRINT® DENTURE IMPACT pink-transparent*	1.000 g
04437	FREEPRINT® DENTURE IMPACT pink*	1.000 g

*approx. available 2024

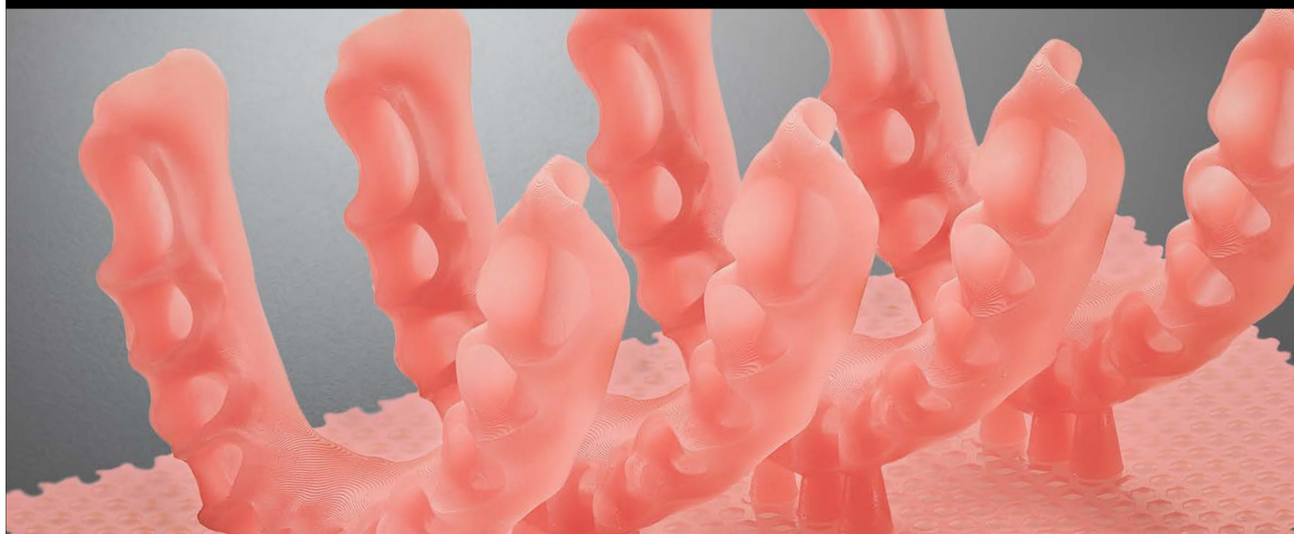


Colors and transparency optimally adapted to classic denture resins.

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.



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
- MMA- & THF-MA-free

THF-MA FREE
MMA FREE

MDR
FDA LISTING
36 MONTHS

Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178[1)]	MPa	> 100
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 2200
Hardness	–	Shore D	> 85

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

04427 FREEPRINT® TRYIN A2 1.000 g

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

Easy verification of fit function and occlusion.

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

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

MMA FREE

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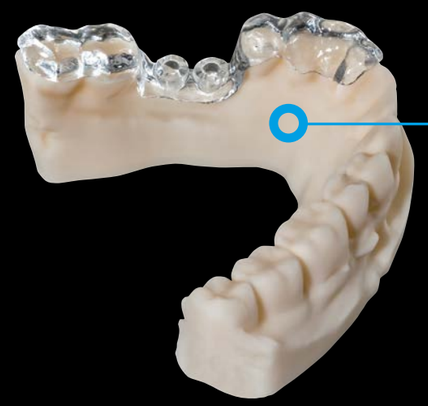
Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-2[1)]	MPa	> 75
Flexural modulus	DIN EN ISO 20795-2[1)]	MPa	> 1650
Water absorption	DIN EN ISO 20795-2[1)]	µg/mm³	< 32
Solubility	DIN EN ISO 20795-2[1)]	µg/mm³	< 5
Hardness	–	Shore D	> 82
Biocompatibility	DIN EN ISO 10993-1[2)]	–	fulfilled

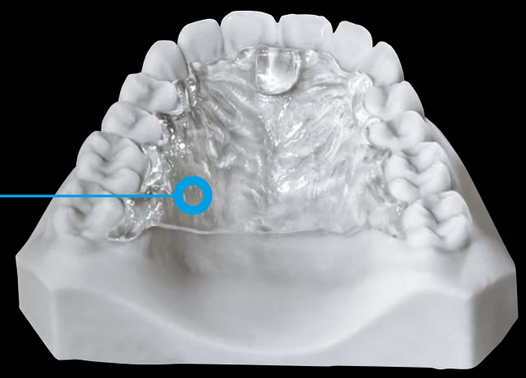
[1)] Dentistry: Orthodontic resins (in keeping with the standard at room temperature)
[2)] Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

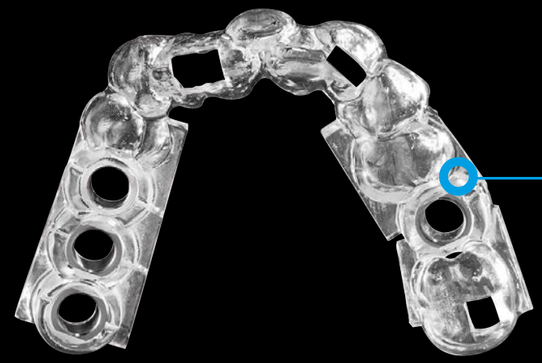
03989	FREEPRINT® ORTHO	1.000 g
04323	FREEPRINT® ORTHO	5 kg



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

For printing hard resin parts of orthodontic appliances.





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

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

THF-MA FREE

MMA FREE

MDR

FDA LISTING

36 MONTHS

CE 0483

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

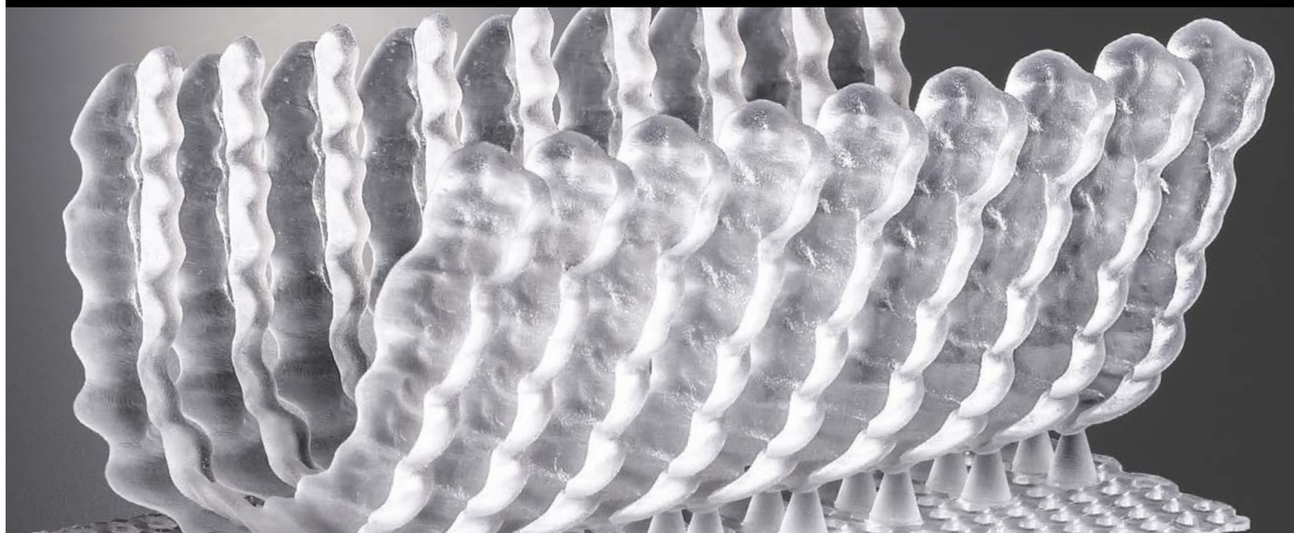
[1)] Dentistry: Orthodontic resins (in keeping with the standard at room temperature)
[2)] Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

02080	FREEPRINT® SPLINT 2.0	500 g
02076	FREEPRINT® SPLINT 2.0	1.000 g

Hard occlusal splint, rigid type, with high efficiency.

Transparent, mouth-resistant and easy to clean.

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



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 IIa

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

TPO FREE
THF-MA FREE
MMA FREE

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

[1] Resins: Determination of tensile strength (in keeping with the standard at room temperature)
[2] Thermoplastic elastomers: Determination of tear propagation resistance (in keeping with the standard at room temperature)
[3] Dentistry: Orthodontic resins (in keeping with the standard at room temperature)

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

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.

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

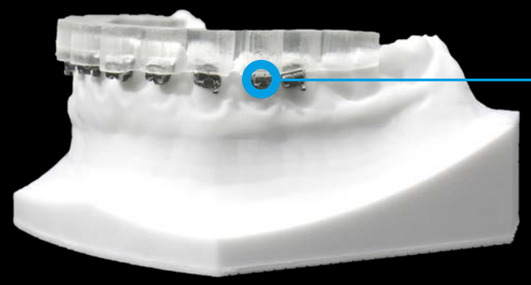
BPA FREE
THF-MA FREE
MMA FREE

MDR · FDA LISTING · 36 MONTHS · CE

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

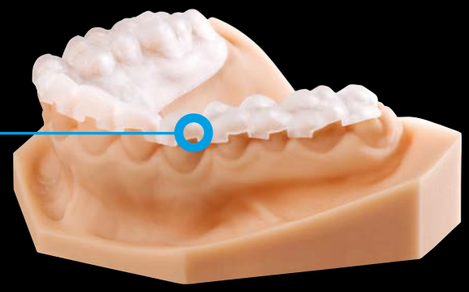
[1)] Resins: Determination of tensile strength (in keeping with the standard at room temperature)
[2)] Thermoplastic elastomers: Determination of tear propagation resistance (in keeping with the standard at room temperature)
[3)] Biological assessment of medical devices – Part 1: Assessment and testing 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

THF-MA FREE

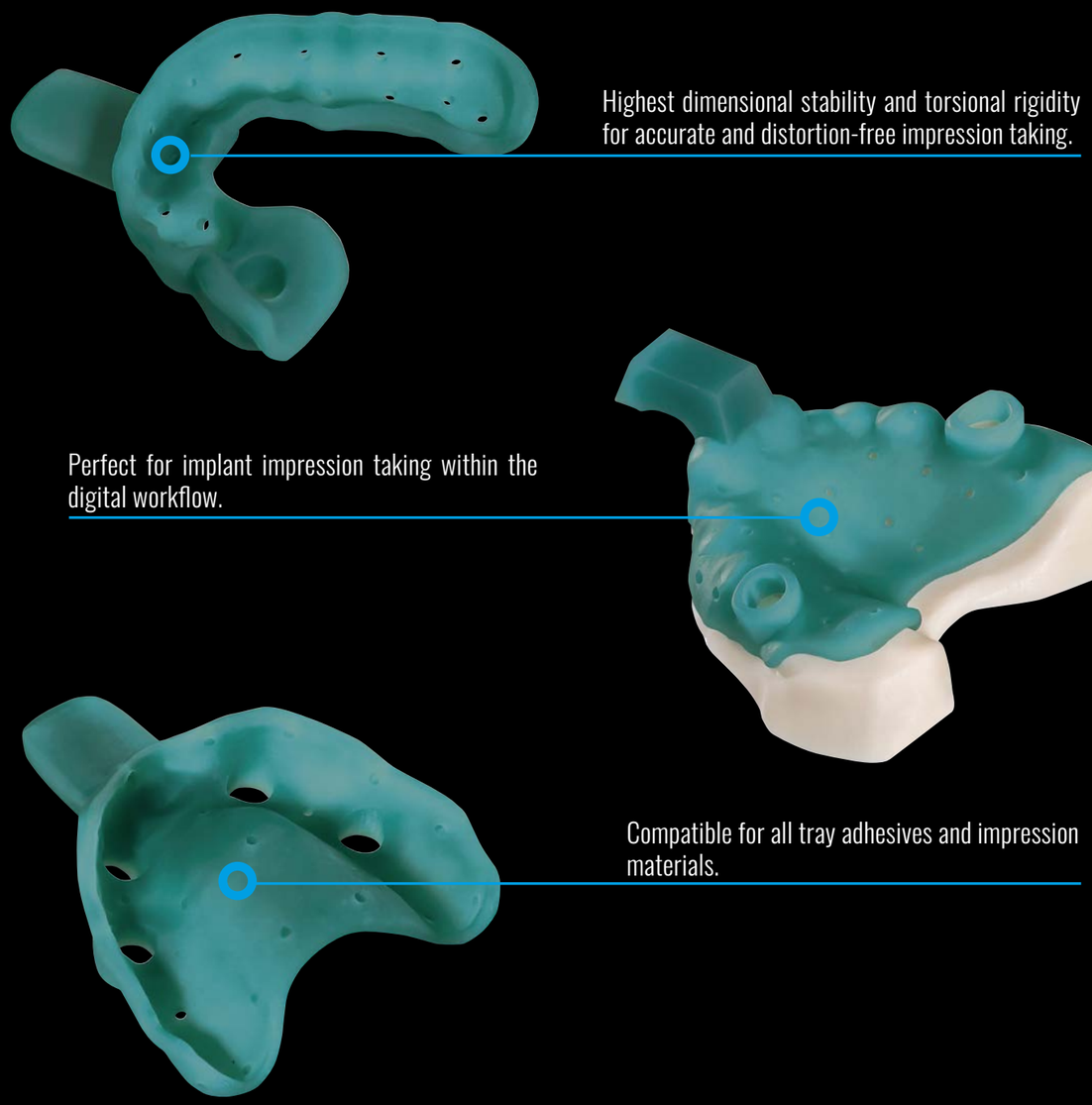
MMA FREE

MDR · FDA LISTING · 36 MONTHS · CE

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

[1)] Resins: Determination of flexural strength (in keeping with the standard at room temperature)
[2)] Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

02505 FREEPRINT® TRAY 2.0 1.000 g



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

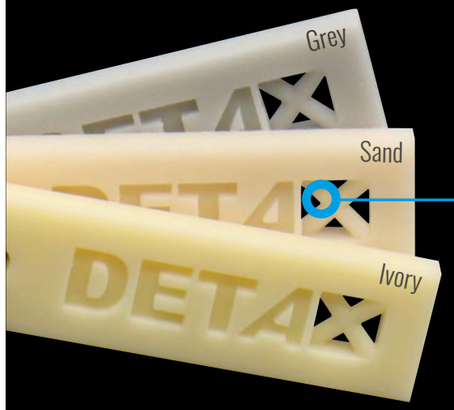
BPA FREE
MMA FREE

36 MONTHS

Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178[1)]	MPa	> 70
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1500
Hardness	–	Shore D	> 80

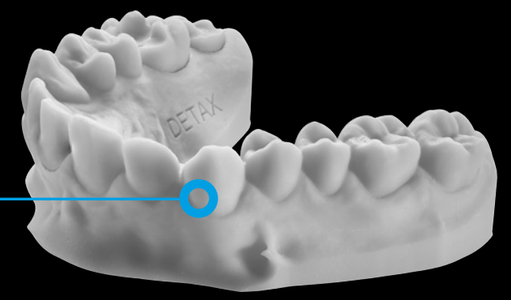
[1)] Resins: Determination of flexural strength (in keeping with the standard at room temperature)

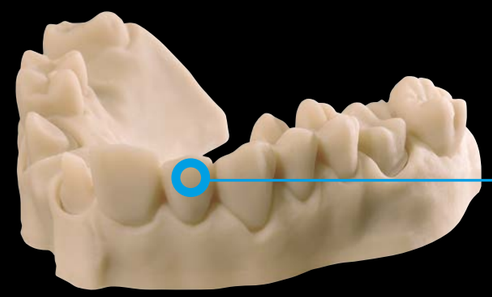
03780	FREEPRINT® MODEL ivory	1.000 g
03782	FREEPRINT® MODEL grey	1.000 g
03778	FREEPRINT® MODEL sand	1.000 g
04321	FREEPRINT® MODEL sand	5 kg



Haptics and stability meet the high requirements in model making.

The high mechanical strength ensures the functionality and loading of the models.





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

THF-MA FREE
MMA FREE

36 MONTHS
eco
TEC

Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178[1)]	MPa	> 80
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1700
Hardness	–	Shore D	> 80

[1)] 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

* not 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

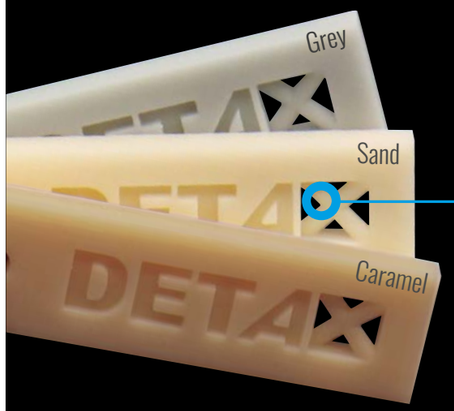
TPO FREE · BPA FREE · MMA FREE · THF-MA FREE

36 MONTHS · eco · TEC

Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178[1)]	MPa	> 90
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 2000
Hardness	–	Shore D	> 82

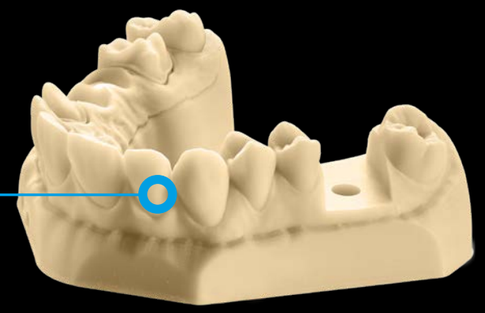
[1)] Resins: Determination of flexural strength (in keeping with the standard at room temperature)

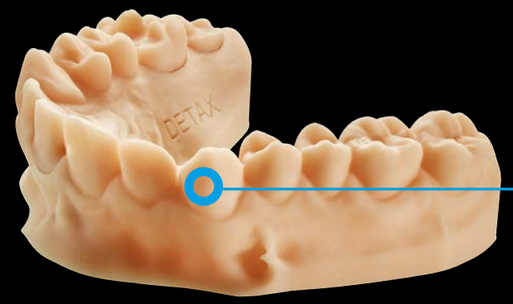
04440	FREEPRINT® MODEL PRO caramel	1.000 g
04438	FREEPRINT® MODEL PRO grey	1.000 g
04439	FREEPRINT® MODEL PRO sand	1.000 g



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

MMA FREE

36 MONTHS

eco

TEC

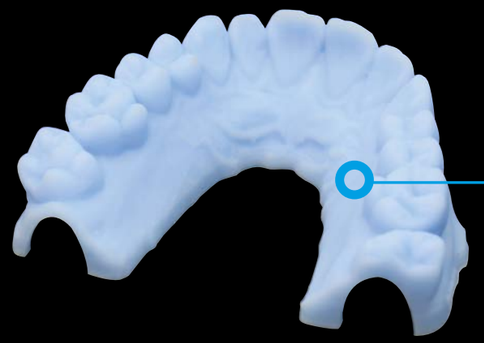
Parameters	Standard	Unit	Results
Working temperature for thermoforming sheets		°C	≤ 195
Flexural strength	DIN EN ISO 178[1)]	MPa	> 80
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1700
Hardness	–	Shore D	> 83

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

02332	FREEPRINT® MODEL T	1.000 g
04322	FREEPRINT® MODEL T	5 kg

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.

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

THF-MA FREE
MMA FREE

36 MONTHS

TEC

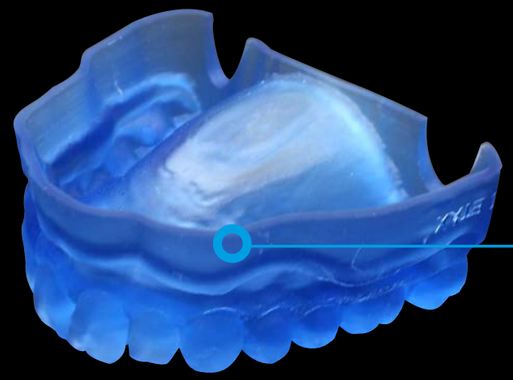
Parameters	Standard	Unit	Results
Working temperature for thermoforming sheets		°C	≤ 195
Flexural strength	DIN EN ISO 178[1)]	MPa	> 85
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1800
Hardness	–	Shore D	> 82

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

03105 FREEPRINT® MODEL WW 1.000 g

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.

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

BPA FREE · THF-MA FREE · MMA FREE

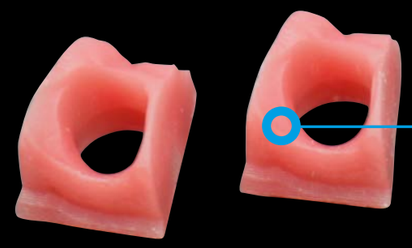
36 MONTHS

TEC

Parameters	Standard	Unit	Results
Tensile strength	DIN EN ISO 527-1[1)]	MPa	> 3
Tensile elongation	DIN EN ISO 527-1[1)]	–	> 90 %
Hardness	–	Shore A	> 70

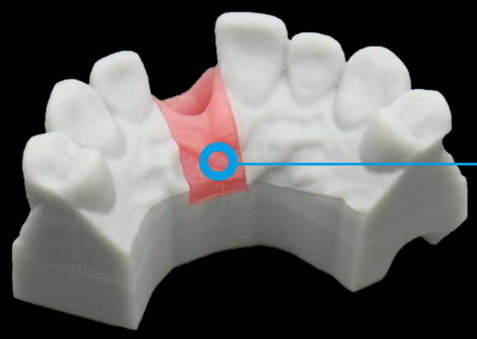
[1)] Resins: Determination of tensile strength (in keeping with the standard at room temperature)

02820	FREEPRINT® GINGIVA	500 g
02843	FREEPRINT® GINGIVA	1.000 g



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

THF-MA FREE
MMA FREE

36 MONTHS

TEC

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

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

02548	FREEPRINT® CAST 2.0	500 g
02632	FREEPRINT® CAST 2.0	1.000 g

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

CERTIFIED ISO 13485:2016 → **VALIDATED** Printing Process → **BIOCOMPATIBLE** ISO 10993

CURRENT VALIDATION TABLE
WWW.DETAX.COM

Qualification
- ☑ Done
- ☐ In process
- ● On request

385 nm | 405 nm

		ASIGA Max / Mini	ASIGA Pico2	ASIGA PRO2	ASIGA PRO 4K	MICROLAY Versus	Miicraft Prime / Hyper Series	Miicraft Ultra Series	PrograPrint PR5	Miicraft Profession / Advance Series	Rapid shape D10 / D20 Series	Rapid shape D30 / D40 Series	Rapid shape D70 /D90 Series	Rapid shape D100	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
FREEPRINT® MED	TEMP	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	●	☑	☑	●	☐	☐	☐	☐	☐	☐	☐	☐	
	CROWN	☑	●	●	☑	☐	☐	☐	☐	☐	☑	☑	☐	●	☑		●	●	●	●	●	●	●	●	●	
	DENTURE	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☐	☐	☑	☑	●	☐	☐	☐	☐	☐	☐	☐	☐	
	DENTURE IMPACT	☐	●	●	☐	●	●	●		●	☐	☐	●	●	☐		●	●	●	●	●	●	●	●	●	
	ORTHO	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	●	☑	☑	●	☐	●	●	●	●	●	●	●	
	SPLINT 2.0	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☐	●	☑	☑	●	●	●	●	●	●	●	●	●	
	SPLINTMASTER	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐	●	☐		●	●	●	●	●	●	●	●	●	
	IBT	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☐	●	☑	☑	●	●	●	●	●	●	●	●	●	
	TRAY 2.0	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☐	●	☑	☑	●	●	☐	●	☐	☐	☐	☐	●	
	TRYIN	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	●	☑	☑	●	●	●	●	●	☐	☐	☐	●	
FREEPRINT® TEC	MODEL	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑	☑	☐	☑	☑	☑	☑	☑	☑	☑	☑	
	MODEL 2.0	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☐	☐	☑	☑	☐	☑	☑	☑	☑	☐	☐	☐	☑	
	MODEL PRO	☐			☐	☐	☐	☐		☐	☐	☐	☐	☐	☐		●	●	●	●	●	●	●	●	●	
	MODEL T	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑	☑	☐	☑	☑	☐	☑	☑	☑	☑	☐	☑	☑	☑	
	MODEL WW	☑	☑	☑	☑	☐	☐	☐		☐	☐	☐	☐	☐	☐		☐	☑	☑	☑	☑	●	●	●	☑	
	GINGIVA	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	●	☑	☑	☐	☑	☑	☑	☑	☐	☑	☑	☑	
	CAST 2.0	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	●	☑	☑	☐	☑	☑	☑	☑	☐	☑	☑	☑	
PRIMEPRINT MED & TEC	Primeprint (made by DETAX)																									☑

version: March 06, 2023

PROCESS VALIDATION **CURING DEVICES**

Qualification

- Done
- In process
- On request

				LED												
	NK Optik Otoflash G171 N2	**Otoflash** 250	**Otoflash** 500	**Rapid Shape** RS cure	**Rapid Shape** RS cure XL	**Dentalfarm** Photopol	**Meccatronicore** BB-Cure	**Scheu** Imprimo Cure	**Phrozen** Phrozen Cure	**PrograPrint** Cure	**Sprint Ray** Pro Cure	**Formlabs** Form Cure	**Hey Gears** PCU 3.0	**Dreve** PCU LED N2	**Shining 3D** FabCure	**Prusa Research** Medical CW one	**Dentsply Sirona** Primeprint PPU
FREEPRINT® MED																	
TEMP	☑	☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	
CROWN	☑	☐	☐	☑	☐	☐	●	●	●	☐	●	●	●	●	●	●	
DENTURE	☑	☐	☐	☑	☐	☑	☐	☐	☐		☐	☐	☐	☐	☐	☐	
DENTURE IMPACT 2024	☐	☐	☐	☐	☐	☐	●	●	●		●	●	●	●	●	●	
ORTHO	☑	☐	☐	☑	☐	☐	☐	☐	☐		☐	☐	☐	☐	●	●	
SPLINT 2.0	☑	☐	☐	☐	☐	☑	●	●	●		●	●	●	●	●	●	
SPLINTMASTER	☐	☐	☐	☐	☐	☐	●	●	●		●	●	●	●	●	●	
IBT	☑	☐	☐	☑	☐	☑	●	●	●		●	●	●	●	●	●	
TRAY 2.0	☑	☐	☐	☐	☐	☑	●	●	●		●	●	●	●	●	●	
TRYIN	☑	☐	☐	☑	☐	☑	●	●	●		●	●	●	●	●	●	
FREEPRINT® TEC																	
MODEL	☑	☐	☐	☑	☐	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑	
MODEL 2.0	☑	☐	☐	☑	☐	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑	
MODEL PRO	☐	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐	☐	
MODEL T	☑	☐	☐	☑	☐	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑	
MODEL WW	☑	☐	☐	☑	☐	☑	☑	☑	☑		☑	☑	☑	☑	☑	☑	
GINGIVA	☑	☐	☐	☑	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	
CAST 2.0	☑	☐	☐	☑	☐	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	
PRIMEPRINT MED & TEC																	
Primeprint (made by DETAX)																	☑

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.

CLEANING

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

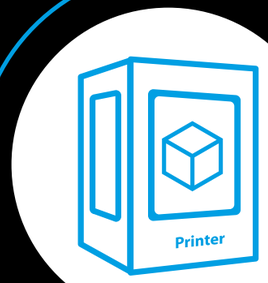
SCAN

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.

DESIGN

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.

PRINTING



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.

CLEANING

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.

FINISHING

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.

#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“

FREEPRINT® TEMP

FREEPRINT® CAST

FREEPRINT® MODEL T

FREEPRINT® MODEL

FREEPRINT® ORTHO

FREEPRINT® TRAY

CERTIFICATION

DETAX MDR CERTIFIED 2020

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.

FDA 510(k) CLEARED

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

PREMIUM SHELF LIFE 36 MONTHS

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.


mdc
EU- Qualitätsmanagementbescheinigung


EG-Zertifikat
DETAX GmbH & Co. KG
Carl-Zeiss-Straße 4
76275 Ettlingen
Deutschland
Qualitätssicherungssystem
Anhang II – ohne Abschnitt 4
der EG-Richtlinie 93/42/EWG


Zertifikat
DETAX GmbH
Carl-Zeiss-Straße 4
76275 Ettlingen
Deutschland
Qualitätsmanagementsystem
DIN EN ISO 13485


CERTIFICATE
DETAX GmbH
Carl-Zeiss-Straße 4
76275 Ettlingen
Germany
ISO 13485 : 2016


Annex to certificate
Certificate registration No.: 352715 MDSAP16
Certificate unique ID: 170780190
Effective date: 2022-05-25
DETAX GmbH
Carl-Zeiss-Straße 4
76275 Ettlingen
Germany


Annex to certificate
Certificate registration No.: 352715 MDSAP16
Certificate unique ID: 170780190
Effective date: 2022-05-25
DETAX GmbH
Carl-Zeiss-Straße 4
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