3D FREEPRINT® DENTAL RESINS

MDR CERTIFIED 2020

DETAX
HIGH PERFORMANCE POLYMERS

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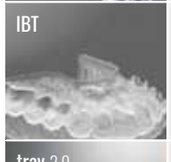
Material type	Application	Colour	Characteristics	Medical device Class MDR	Medical device Class FDA	Medical device Class China
 temp	• temporary crowns & bridges • anterior and posterior tooth restorations	A1, A2, A3	• natural transparency and tooth esthetics • extremely high construction precision • 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	in process	in process	–
 denture	• removable denture bases • total prosthesis	pink-transparent, pink	• long-term stable and biocompatible dentures • fast printing • perfect fit • biocompatible	IIa	II	–
 tryin	• functional try-ins for complete and partial dentures	A2	• fast, material saving production • high mechanical stability	in process	in process	–
 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
 supersplint	• flexible splints • Nightguards	clear-transparent	• flexible • easy to polish • high tension-free wearing comfort	in process	in process	–
 IBT	• orthodontic transfer trays for positioning brackets	transparent	• elastic and tear-resistant • secure and precise fixing of brackets • biocompatible	I	I	–
 tray 2.0	• individual impression and functional trays • base resin plates	green	• high dimensional stability, torsional rigidity • max. construction speed • compatible with all impression materials • biocompatible	I	I	TEC resin

MDR Medical Device Regulation EU **FDA** Food and Drug Administration USA **NMPA** National Medical Products Administration China
THF-MA-free does not contain any tetrahydrofurfuryl methacrylate [Reproductive Toxicity, Cat. 1B] **BPA-free** does not contain any raw material based on bisphenol A [Reproductive Toxicity, Cat. 1B] **MMA-free** does not contain any methyl methacrylate

Material type	Application	Colour	Characteristics	Medical device Class MDR	Medical device Class FDA	Medical device Class China
 model	• working, situation and control models	ivory, grey, sand	• maximum surface hardness • dimensional stability • pleasant haptic • very good construction precision	TEC resin	TEC resin	I
 model 2.0	• master, working and situation models	caramel, grey, light grey, sand	• high detail reproduction • max. surface hardness and dimensional stability • plaster-like appearance and haptic • very good construction precision	TEC resin	TEC resin	I
 model basic	• working, situation and control models	beige	• high surface hardness and dimensional stability • pleasant haptic • good construction precision	TEC resin	TEC resin	–
 model KFO	• model production and 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 3D 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 certified
36 Months Shelf life
Eco-Bag 3/5 kg
Medical Product Class I
Bisphenol A free
THF-MA free
FDA listed
Registered in Russia
Technical Product
Medical Product Class IIa
MMA free

FREEPRINT® temp

TEMPORARY CROWNS & BRIDGES
ANTERIOR AND POSTERIOR TOOTH RESTORATIONS

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

Colours: 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

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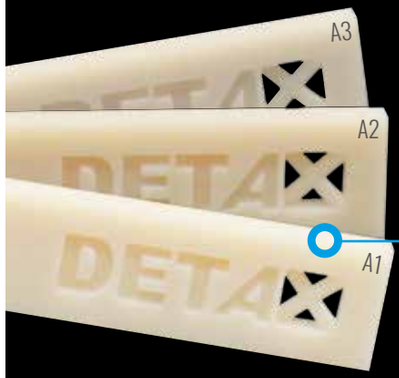
Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 10477[1)]	MPa	> 100
Flexural modulus	DIN EN ISO 10477[1)]	MPa	> 2300
Water sorption	DIN EN ISO 10477[1)]	µg/mm³	< 40
Water solubility	DIN EN ISO 10477[1)]	µg/mm³	< 7,5
Hardness	-	Barcol	> 40
Biocompatibility	DIN EN ISO 10993-1[2)]	-	complies

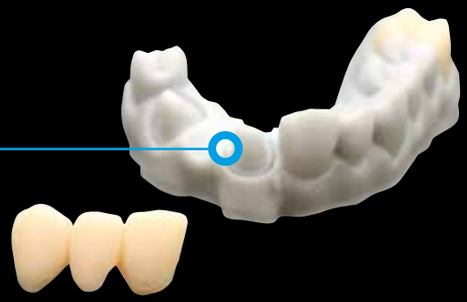
[1)] Polymer-based crown and bridge materials (in accordance with the norm at room temperature)
[2)] Biological evaluation of medical devices – Part 1: Evaluation and testing within a risk management process

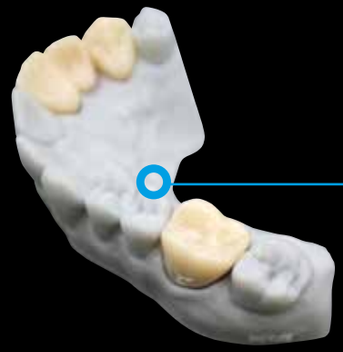
04058	FREEPRINT® temp A1	500 g
04059	FREEPRINT® temp A2	500 g
04060	FREEPRINT® temp A3	500 g
04062	FREEPRINT® temp A1	1.000 g
04063	FREEPRINT® temp A2	1.000 g
04064	FREEPRINT® temp A3	1.000 g



The natural-looking translucent colours (according to VITA classical A1-D4 shade guide) can be aesthetically 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 an 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 single crowns, denture teeth and long-term temporary bridges.

Colours A1, A2, A3, B1, B3, C2, D3, BL
Wavelength: 385 nm
Medical Device Class IIa

- Wide range of aesthetically appealing colours
- Very high fracture strength and abrasion resistance
- Easy to grind and polish
- MMA & THF-MA free

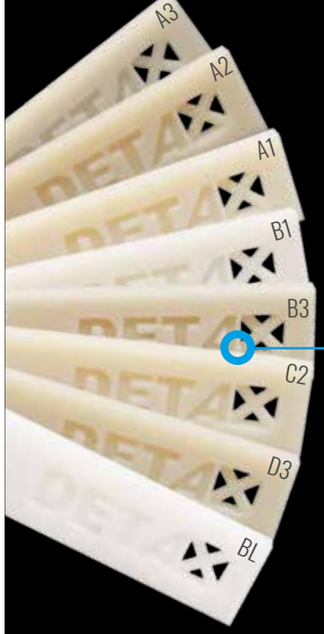
MMA FREE
THF-MA FREE

Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 10477[1)]	MPa	> 100
Flexural modulus	DIN EN ISO 10477[1)]	MPa	> 2800
Water sorption	DIN EN ISO 10477[1)]	µg/mm³	< 40
Water solubility	DIN EN ISO 10477[1)]	µg/mm³	< 7,5
Hardness	-	Barcol	> 50

[1)] Polymer-based crown and bridge materials (in accordance with the norm at room temperature)

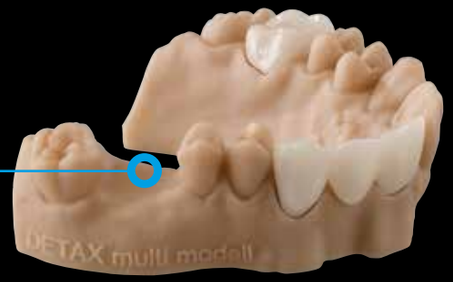
FREEPRINT® crown A1*	500g	02372	1.000g	02376
FREEPRINT® crown A2*	500g	02378	1.000g	02415
FREEPRINT® crown A3*	500g	02417	1.000g	02446
FREEPRINT® crown B1*	500g	02481	1.000g	02519
FREEPRINT® crown B3*	500g	02645	1.000g	02758
FREEPRINT® crown C2*	500g	02766	1.000g	02782
FREEPRINT® crown D3*	500g	02783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

*Q3 / 22



Brilliant colors (according to VITA classical A1-D4 shade guide) thanks to perfectly matched transparency and opacity.

Maximum dimensional stability due to highest flexural strength and abrasion resistance.



No tendency to discolor thanks to low water absorption.

FREEPRINT® denture

REMOVABLE DENTURE BASES
TOTAL PROSTHESIS

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

Colours: 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 & THF-MA free, tasteless

MMA FREE
THF-MA FREE

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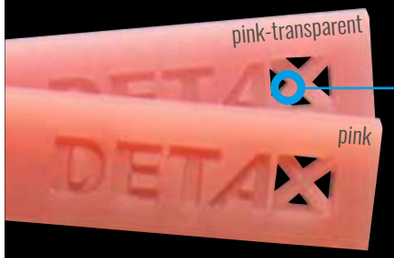
Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 20795-1[1)]	MPa	> 110
Flexural modulus	DIN EN ISO 20795-1[1)]	MPa	> 2500
Water absorption	DIN EN ISO 20795-1[1)]	µg/mm³	< 32
Solubility	DIN EN ISO 20795-1[1)]	µg/mm³	< 1,6
Hardness	-	Shore D	> 83
Biocompatibility	DIN EN ISO 10993-1[2)]	-	complies

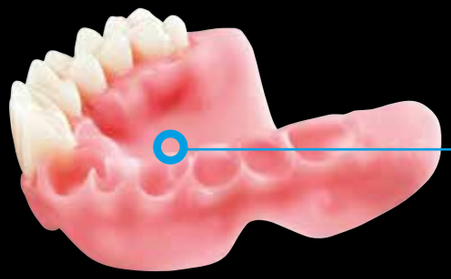
[1)] Dentistry: Denture base polymers (in accordance with the norm at room temperature)
[2)] Biological evaluation of medical devices – Part 1: Evaluation and testing within a risk management process

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® tryin

INDIVIDUAL FUNCTIONAL TRY-INS

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

Colour: 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

Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 178[1)]	MPa	> 100
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 2200
Hardness	-	Shore D	> 85

[1)] Plastics - Determination of flexural properties (in accordance with the norm at room temperature)

04101	FREEPRINT® tryin A2*	1.000 g

*Q2 / 22

Fast and easy generative fabrication 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 color.

FREEPRINT® ortho

SURGICAL GUIDES, AUTOCLAVABLE ORTHODONTIC BASE COMPONENTS

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

Colour: clear-transparent
Wavelength: 385 nm
Medical Device Class IIa

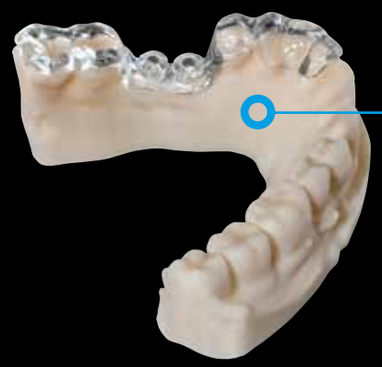
- Validated for autoclave sterilization according to EN ISO 17664!
- Very high mechanical stability
- Compatible with FREEFORM® plast
- MMA-free, tasteless

MMA FREE

Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 20795-2[1)]	MPa	> 75
Flexural modulus	DIN EN ISO 20795-2[1)]	MPa	> 1650
Water sorption	DIN EN ISO 20795-2[1)]	µg/mm³	< 32
Water solubility	DIN EN ISO 20795-2[1)]	µg/mm³	< 5
Hardness	-	Shore D	> 82
Biocompatibility	DIN EN ISO 10993-1[2)]	-	complies

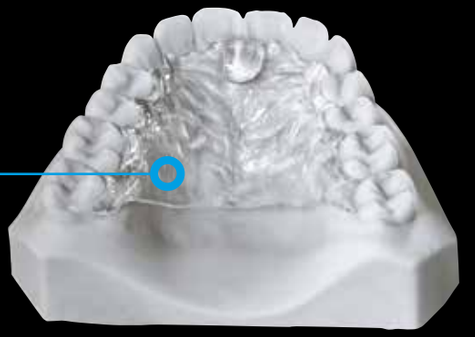
[1)] Dentistry - Part 2: Orthodontic base polymers (in accordance with the norm at room temperature)
[2)] Biological evaluation of medical devices – Part 1: Evaluation and testing within a risk management process

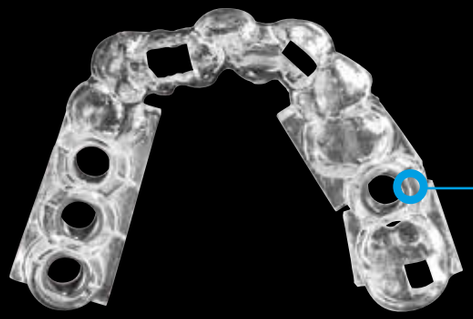
03989	FREEPRINT® ortho	1.000 g
04323	FREEPRINT® ortho	5 kg



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

For printing hard plastic 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 the 3D printing of hard splints.

Colour: clear-transparent
Wavelength: 385 nm
Medical Device Class IIa

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

THF-MA FREE
MMA FREE

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Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 20795-2[1)]	MPa	> 80
Flexural modulus	DIN EN ISO 20795-2[1)]	MPa	> 2000
Water sorption	DIN EN ISO 20795-2[1)]	µg/mm3	< 32
Water solubility	DIN EN ISO 20795-2[1)]	µg/mm3	< 5
Hardness	-	Shore D	> 82
Biocompatibility	DIN EN ISO 10993-1[2)]	-	complies

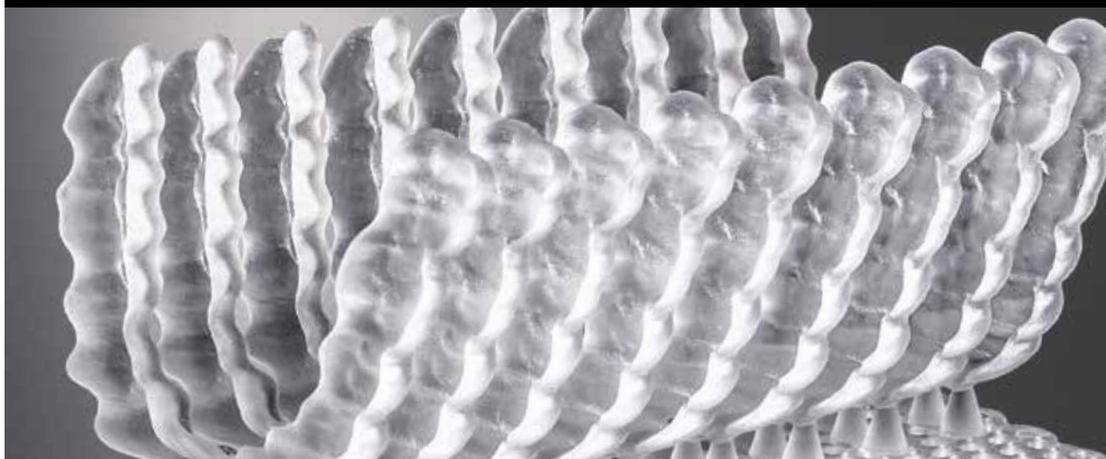
[1)] Dentistry - Part 2: Orthodontic base polymers (in accordance with the norm at room temperature)
[2)] Biological evaluation of medical devices – Part 1: Evaluation and testing within a risk management process

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 for additional occlusal design in practice.



FREEPRINT® supersplint

FLEXIBLE SPLINTS
NIGHTGUARDS

Light-curing formulation for the 3D printing of flexible splints.

Colour: clear-transparent
Wavelength: 385 nm
Medical Device Class IIa

- Flexible
- High, tension-free wearing comfort
- Easy to polish
- MMA & THF-MA free, tasteless

MMA FREE
THF-MA FREE

Clear-transparent, flexible occlusal splints for pleasant wearing comfort.

Versatile applications, e.g. occlusal splints, mouth-guards, bite planes. snoring appliances.

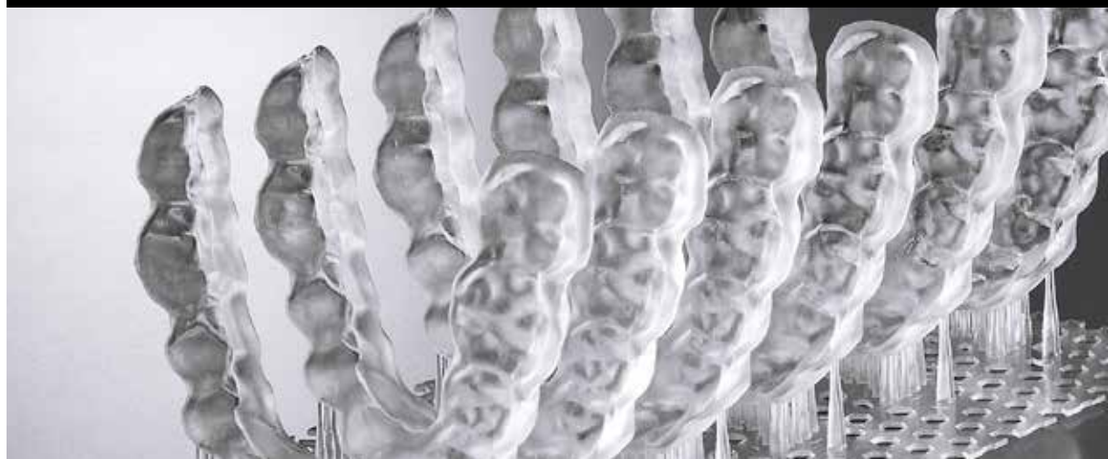
Splints made of FREEPRINT® supersplint are easy to clean and to polish.

Property	Standard	Unit measurement	Result
Tensile strength	DIN EN ISO 527-1[1)]	MPa	> 20*
Elongation	DIN EN ISO 527-1[1)]	-	> 50*
Hardness	-	Shore D	> 70*
Water sorption	DIN EN ISO 20795-2[2)]	µg/mm³	< 32*
Water solubility	DIN EN ISO 20795-2[2)]	µg/mm³	< 5*

[1)] Plastics: Determination of tensile properties (in accordance with the norm at room temperature)
[2)] Dentistry - Part 2: Orthodontic base polymers (in accordance with the norm at room temperature)

02894	FREEPRINT® supersplint*	1.000 g

*Q3 / 22



FREEPRINT® IBT

TRANSFER TRAY
BRACKET POSITIONING

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

Colour: transparent
Wavelength: 385 nm
Medical Device Class I

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

BPA FREE
THF-MA FREE
MMA FREE

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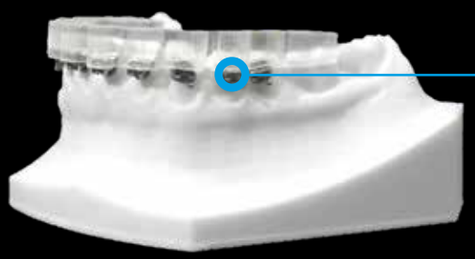
Property	Standard	Unit measurement	Result
Tensile strength	DIN EN ISO 527-1[1)]	MPa	> 8
Elongation	DIN EN ISO 527-1[1)]	-	> 60 %
Tear strength	DIN EN ISO 34-1[2)]	N/mm	> 35
Hardness	-	Shore A	> 90
Biocompatibility	DIN EN ISO 10993-1[3)]	-	complies

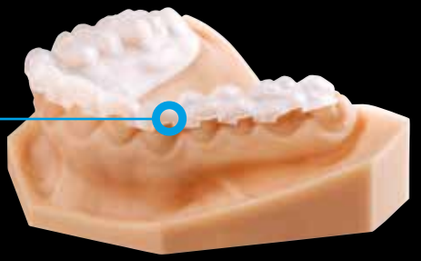
[1)] Plastics: Determination of flexural properties (in accordance with the norm at room temperature)
[2)] Rubber, vulcanized or thermoplastic: Determination of tear strength (in accordance with the norm at room temperature)
[3)] Biological evaluation of medical devices – Part 1: Evaluation and testing within a risk management process

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 the 3D printing of individual impression and functional trays, base plates.

Colour: green
Wavelength: 380 – 405 nm
Medical Device Class I

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

MMA FREE
THF-MA FREE

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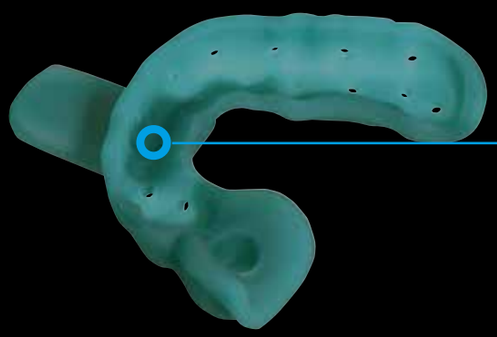
Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 178[1)]	MPa	> 90
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1900
Hardness	-	Shore D	> 84
Biocompatibility	DIN EN ISO 10993-1[2)]	-	complies

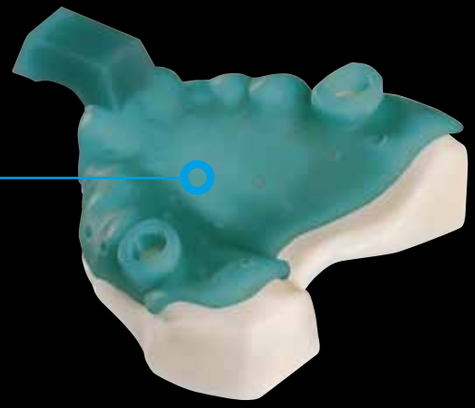
[1)] Plastics - Determination of flexural properties (in accordance with the norm at room temperature)
[2)] Biological evaluation of medical devices – Part 1: Evaluation and testing within a risk management process

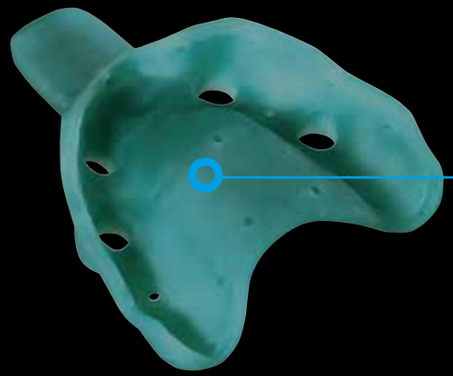
02505 FREEPRINT® tray 2.0 1.000 g



Highest dimensional stability and torsional rigidity for accurate and distortion-free impressions.

Perfect for implant impression taking within the digital workflow.





Compatible for all tray adhesives and impression materials.

FREEPRINT® model

MODEL PRODUCTION
WORKING MODELS
SITUATION MODELS
CONTROL MODELS

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

Colours: ivory, sand, grey
Wavelength: 380 – 405 nm
Technical Product

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

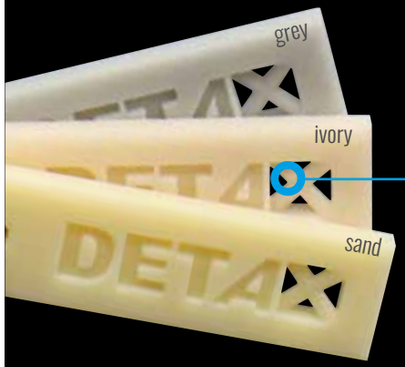
BPA FREE
MMA FREE

36 MONTHS

Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 178[1)]	MPa	> 70
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1500
Hardness	-	Shore D	> 80

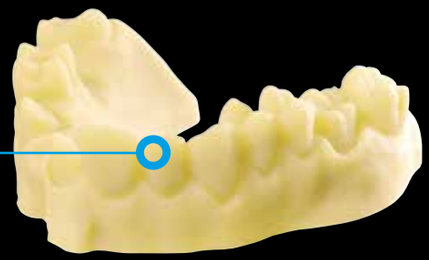
[1)] Plastics: Determination of flexural properties (in accordance with the norm at room temperature)

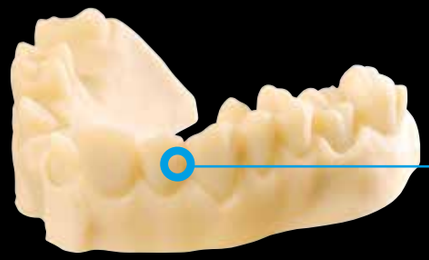
03780	FREEPRINT® model ivory	1.000 g
03782	FREEPRINT® model grey	1.000 g
03778	FREEPRINT® model sand	1.000 g
04321	FREEPRINT® model sand	5 kg



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 colours: grey, ivory, sand.

FREEPRINT® model 2.0

MODEL PRODUCTION
MASTER MODELS
WORKING MODELS
CONTROL MODELS

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

Colours: caramel, grey, light grey, sand, white
Wavelength: 380 – 405 nm
Technical Product

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

36 MONTHS | eco | TEC

Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 178[1)]	MPa	> 80
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1700
Hardness	-	Shore D	> 80

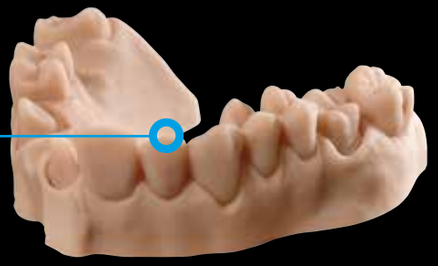
[1)] Plastics: Determination of flexural properties (in accordance with the norm at room temperature)

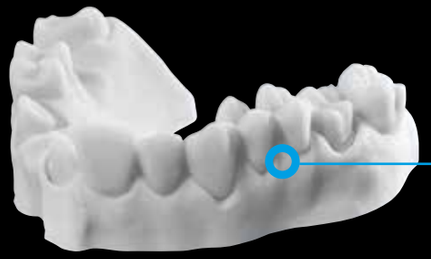
caramel	1.000 g	02850	5 kg	04015
grey	1.000 g	02177	5 kg	04106
light grey	1.000 g	02099	5 kg	04107
sand	1.000 g	02128	5 kg	04117
white*	1.000 g	02148	5 kg	04118
model basic beige	1.000 g	02068		

* not THF-MA free

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

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 T

MODEL PRODUCTION
THERMOFORMING TECHNIQUE

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

Colour: 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

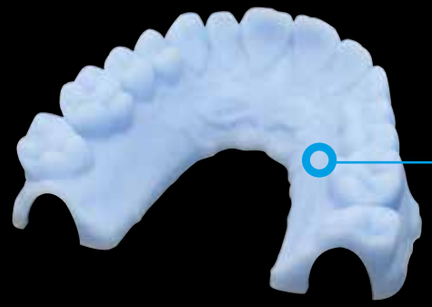
Property	Standard	Unit measurement	Result
Working temperature for thermoforming foils		°C	≤ 195
Flexural strength	DIN EN ISO 178[1)]	MPa	> 80
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1700
Hardness	-	Shore D	> 83

[1)] Plastics: Determination of flexural properties (in accordance with the norm 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 the 3D printing of dental models for the thermoforming technique.

Colour: 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

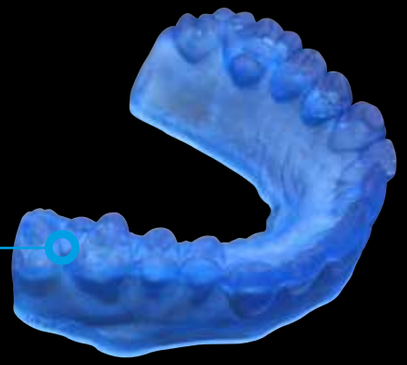
TEC

Property	Standard	Unit measurement	Ergebnis
Working temperature for thermoforming foils		°C	≤ 195
Flexural strength	DIN EN ISO 178[1)]	MPa	> 85
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1800
Hardness	-	Shore D	> 82

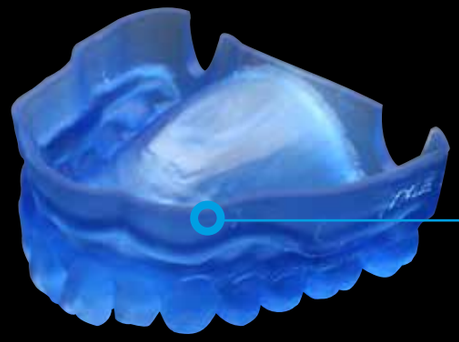
[1)] Plastics: Determination of flexural properties (in accordance with the norm at room temperature)

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 the 3D printing of flexible gingival masks for dental models.

Colour: gingiva
Wavelength: 380 – 405 nm
Technical Product

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

BPA FREE
THF-MA FREE
MMA FREE

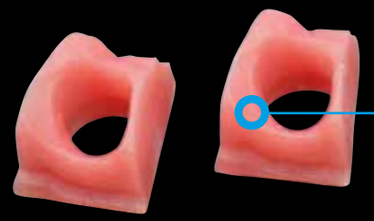
36 MONTHS

TEC

Property	Standard	Unit measurement	Result
Tensile strength	DIN EN ISO 527-1[1)]	MPa	> 3
Tensile strain	DIN EN ISO 527-1[1)]	-	> 90 %
Final Hardness	-	Shore A	> 70

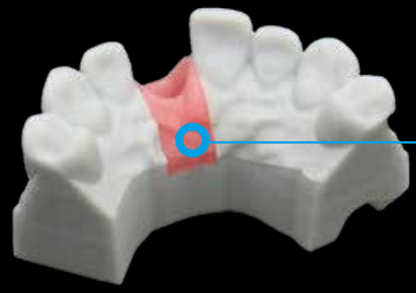
[1)] Plastics: Determination of tensile properties (in accordance with the norm at room temperature)

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 conjunction with FREEPRINT® model.

FREEPRINT® cast 2.0

CASTING OBJECTS

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

Colour: 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

Property	Standard	Unit measurement	Result
Flexural strength	DIN EN ISO 178[1)]	MPa	> 70
Flexural modulus	DIN EN ISO 178[1)]	MPa	> 1700
Heating temperature	-	-	1 h @ 800 °C
Cauterisation residual ash content		-	< 0,1 %

[1)] Plastics: Determination of flexural properties (in accordance with the norm 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.

FREEPRINT®

PROCESS VALIDATION
PRINTERS

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	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	Microlay Eve Pro	Shining Accufab D1	moonray S100	Phrozen Sonic 4K	Flashforge Hunter	Sprint Ray Pro
MEDICAL RESINS																				
temp	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	●	☑	☑	☐	☐	☐	☐	☐	☐
crown Q3/22	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	●	☐	☐	●	●	●	●	●	●
denture	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☑	☑	☐	☐	☐	☐	☐	☐
ortho	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	●	☑	☑	●	☐	☐	☐	☐	☐
splint 2.0	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	●	☑	☑	●	●	●	●	●	●
supersplint Q3/22	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	●	☐	☐	●	●	●	●	●	●
IBT	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	●	☑	☑	●	●	●	●	●	●
tray 2.0	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	●	☑	☑	☐	●	●	☐	●	●
tryin Q2/22	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	●	☑	☑	●	●	●	●	●	●
TEC RESINS																				
model	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
model 2.0	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☑	☑	☑	☑	☑	☑	☑	☑
model T	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	☑	☑	☑	☑	☑	☑	☑	☑
model WW	☑	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☑	☑	☑	☑	☑
gingiva	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	●	☑	☑	☑	☑	☑	☑	☑	☑
cast 2.0	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☐	●	☑	☑	☑	☑	☑	☑	☑	☑

edition: 01.09.21

CERTIFIED
ISO 13485:2016

VALIDATED
Printing Process

BIOCOMPATIBLE
ISO 10993

CERTIFIED VALIDATED RELIABLE

Only the combination of high-performance resins with scientifically based expert knowledge from all areas of the digital workflow leads to cumulated expertise, to truly innovative products, and thus to an unlimited choice of materials. FREEPRINT® materials are validated for all standard DLP & LCD printers. Our validation portfolio is continuously being expanded with new materials and qualified printers. To this end, our experts check and document complete process sequences in accordance with the relevant standards and regulatory requirements. This ensures permanently reproducible results and constant product quality.

Digital Workflow requires profound material competence and a close cooperation with the technology partners in order to perfectly match individual elements of the process chain. For transparency and process reliability, all FREEPRINT® instructions for use comprise an overview of validated printers, certified finishing equipment (post-exposure, cleaning, etc.) and detailed flowcharts of the manufacturing process.

Our expert team will support you with useful tips.

FREEPRINT®

PROCESS VALIDATION
CURING DEVICES

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

		LED								
		 **NK Optik** Otoflash G171 N2	 **Rapid Shape** RS cure	 **Dentalfarm** Photopol	 **Meccatronicore** BB-Cure	 **Scheu** Imprimo Cure	 **Phrozen** Phrozen Cure	 **Sprint Ray** Pro Cure	 **Formlabs** Form Cure	 **Hey Gears** PCU 3.0	 **Dreve** PCU LED N2
MEDICAL RESINS	temp 	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐
	crown  Q3/22	☐	☐	☐	●	●	●	●	●	●	●
	denture 	☑	☑	☑	☐	☐	☐	☐	☐	☐	☐
	ortho 	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
	splint 2.0 	☑	☐	☑	●	●	●	●	●	●	●
	supersplint  Q3/22	☐	☐	☐	●	●	●	●	●	●	●
	IBT 	☑	☑	☑	●	●	●	●	●	●	●
	tray 2.0 	☑	☐	☑	●	●	●	●	●	●	●
	tryin  Q2/22	☑	☑	☑	●	●	●	●	●	●	●
TEC RESINS	model 	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
	model 2.0 	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
	model T 	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
	model WW 	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
	gingiva 	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
	cast 2.0 	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑

edition: 22.02.22

GOOD TO KNOW ...

BOTTLE ROLLER

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

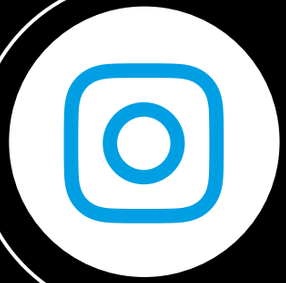
CLEANING

Best cleaning results of the production jobs are achieved when the pre- and post-cleaning are carried out in separate tanks in the ultrasonic unit. After cleaning with isopropanol, it is recommended to clean the bores/openings with compressed air.

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.

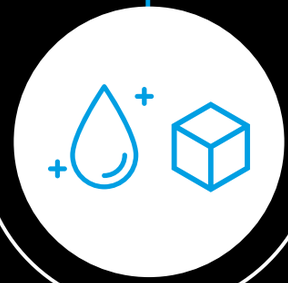
DESIGN

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 an intermediary 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 print 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.

CURING

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 or xenon flashlight in an inert gas atmosphere is recommended.

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.

CERTIFICATION

DETAX MDR CERTIFIED 2020

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

FDA APPROVED

The 3D Premium printing materials FREEPRINT® temp and FREEPRINT® denture are FDA-approved. FREEPRINT® temp and FREEPRINT® ortho are registered in Russia as well!

PREMIUM SHELF LIFE 36 MONTHS

All DETAX 3D Premium printing materials have a shelf life of 36 months and can be used during this period without any loss of quality in the printing process.

#HELLO ECOBAG

NEW: In addition to the 1-kg standard bottles, many FREEPRINT® materials will be offered in beneficial 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 easily 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

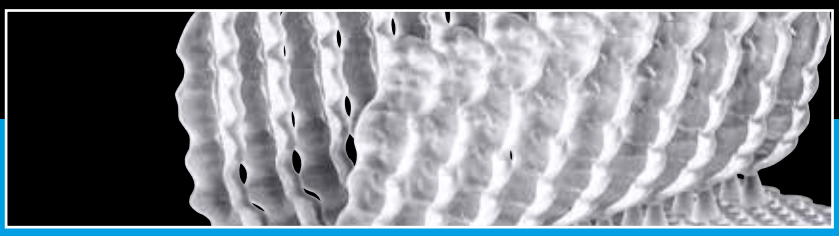
FREEPRINT® cast

FREEPRINT® model T

FREEPRINT® model

FREEPRINT® ortho

FREEPRINT® tray



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