

FREEPRINT®

HIGHCLASS 3D DENTAL RESINS



» PRODUCT CATALOGUE «
2023

DETAX
HIGHEND MEDICAL MATERIALS



CONTENTS

PRODUCT OVERVIEW

3D PREMIUM RESINS

Product Overview.....	3
Product Matrix.....	4
FREEPRINT® TEMP	6
FREEPRINT® CROWN.....	8
FREEPRINT® DENTURE	10
FREEPRINT® DENTURE IMPACT	12
FREEPRINT® TRYIN	14
FREEPRINT® ORTHO	16
FREEPRINT® SPLINT 2.0.....	18
FREEPRINT® SPLINTMASTER.....	20
FREEPRINT® IBT	22
FREEPRINT® TRAY 2.0	24
FREEPRINT® MODEL	26
FREEPRINT® MODEL 2.0.....	28
FREEPRINT® MODEL PRO.....	30
FREEPRINT® MODEL T	32
FREEPRINT® MODEL WW	34
FREEPRINT® GINGIVA	36
FREEPRINT® CAST 2.0	38
Validated Printers.....	40
Validated Curing devices	42
Good to know.....	43
3D Workflow.....	44
Product Clips.....	46
Certification.....	47



FREEPRINT® TEMP

Temporary crowns & bridges
Anterior and posterior restorations



FREEPRINT® CROWN

Permanent crowns, denture teeth
Long-term temp. bridges



FREEPRINT® DENTURE

Removable denture bases
Total prothesis



FREEPRINT® DENTURE IMPACT

Removable denture bases
Total prothesis



FREEPRINT® TRYIN

Individual functional try-ins



FREEPRINT® ORTHO

Surgical guides, autoclavable
Orthodontic base components



FREEPRINT® SPLINT 2.0

Hard splints



FREEPRINT® SPLINTMASTER

Flexible splints
Repositioners
Mouthguards
Nightguards



FREEPRINT® IBT

Transfer tray
Bracket positioning



FREEPRINT® TRAY 2.0

Individual impression trays
Functional trays
Base plates



FREEPRINT® MODEL

Model production
Working models
Situation models
Control models



FREEPRINT® MODEL 2.0

Model production
Master models
Working models
Control models



FREEPRINT® MODEL PRO

Model production
Working models
Situation models
Control models



FREEPRINT® MODEL KFO

Model production
Orthodontic models



FREEPRINT® MODEL T

Model production
Thermoforming technique



FREEPRINT® MODEL WW

Model production
Thermoforming technique
Water-washable



FREEPRINT® GINGIVA

Gingival masks



FREEPRINT® CAST 2.0

Casting objects





FREEPRINT® MATRIX


Material type	Application	Color	Characteristics	Medical Devices Class MDR	Medical Devices Class FDA	Medical Devices Class NMPA
TEMP	<ul style="list-style-type: none">Temporary crowns & bridgesTemporary anterior and posterior tooth restorations	A1, A2, A3	<ul style="list-style-type: none">Natural transparency and tooth estheticsExtremely high construction precisionHigh mechanical stabilityBiocompatible	Ila	II	—
CROWN	<ul style="list-style-type: none">Permanent crowns, denture teethLong-term temporary bridges	A1, A2, A3, B1, B3, C2, D3, BL	<ul style="list-style-type: none">Natural transparency and tooth estheticsHighest abrasion resistance	Ila	II	—
DENTURE	<ul style="list-style-type: none">Removable denture basesTotal prothesis	Pink-transparent, pink	<ul style="list-style-type: none">Long-term stable and biocompatible denturesFast printingPerfect fit	Ila	II	—
DENTURE IMPACT	<ul style="list-style-type: none">Removable denture basesTotal prothesis	Pink-transparent, pink	<ul style="list-style-type: none">Long-term stable and biocompatible denturesHigh impact resistanceEasy post-processing	in process	in process	—
TRYIN	<ul style="list-style-type: none">Individual functional try-ins	A2	<ul style="list-style-type: none">Fast, material-saving productionHigh mechanical stability	Ila	I	—
ORTHO	<ul style="list-style-type: none">Surgical guides for implant dentistryOrthodontic base components	Clear-transparent	<ul style="list-style-type: none">Very high mechanical stability & construction precisionHigh printing speedSterilizableBiocompatible	Ila	I	TEC resin
SPLINT 2.0	<ul style="list-style-type: none">Hard splints	Clear-transparent	<ul style="list-style-type: none">High mechanical flexural strength and stabilityHigh initial final hardnessBiocompatible	Ila	I	TEC resin
SPLINTMASTER	<ul style="list-style-type: none">Flexible splintsRepositionersMouthguardsNightguards	Clear-transparent	<ul style="list-style-type: none">FlexibleHigh tensile strengthHigh tension-free wearing comfort	Ila	II	—
IBT	<ul style="list-style-type: none">Orthodontic transfer trays for positioning brackets	Transparent	<ul style="list-style-type: none">Elastic and tear-resistantReliable fixing of bracketsBiocompatible	I	I	—
TRAY 2.0	<ul style="list-style-type: none">Individual impression traysFunctional impression traysBase resin plates	Green	<ul style="list-style-type: none">High dimensional stability, torsional rigidityMax. construction speedCompatible with all impression materialsBiocompatible	I	I	MED resin


Material type	Application	Color	Characteristics	Medical Devices Class MDR	Medical Devices Class FDA	Medical Devices Class NMPA
MODEL	<ul style="list-style-type: none">Dental working and situation modelsControl models	Ivory, grey, sand	<ul style="list-style-type: none">Maximum surface hardnessDimensional stabilityComfortable hapticVery good production precision	TEC resin	TEC resin	I
MODEL 2.0	<ul style="list-style-type: none">Dental master and working modelsControl models	Caramel, grey, light grey, sand	<ul style="list-style-type: none">High detail reproductionMaximum surface hardness and dimensional stabilityPlaster-like appearance and hapticVery good construction precision	TEC resin	TEC resin	I
MODEL PRO	<ul style="list-style-type: none">Dental working and situation modelsControl models	Caramel, grey, sand	<ul style="list-style-type: none">Plaster-like hapticGood dimensional stabilityHigh flexural strengthsEasy post-processing	TEC resin	TEC resin	in process
MODEL KFO	<ul style="list-style-type: none">Laboratory model preparationOrthodontic models	White	<ul style="list-style-type: none">Plaster-like hapticDistinctive edge and dimension stabilityHighest surface quality	TEC resin	TEC resin	—
MODEL T	<ul style="list-style-type: none">Working models for thermoforming technique and aligner technology	Light blue	<ul style="list-style-type: none">High temperature resistance to process-related temperature stressHigh edge strength	TEC resin	TEC resin	I
MODEL WW	<ul style="list-style-type: none">Working models for thermoforming technique and aligner technology	Blue-transparent	<ul style="list-style-type: none">Water-washableHigh temperature resistance	TEC resin	TEC resin	—
GINGIVA	<ul style="list-style-type: none">Flexible gingival masks for dental models	Gingiva	<ul style="list-style-type: none">3D reproduction of functional gingival model segmentsExcellent elasticity and tear resistanceNatural gingiva esthetics	TEC resin	TEC resin	I
CAST 2.0	<ul style="list-style-type: none">Dental casting objects for precision casting	Red-transparent	<ul style="list-style-type: none">Residue-free burning outHigh dimensional stability after printingPrecise 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


MDR-certified


FDA-listed


FDA 510(k) clearance


36 months shelf life


Registered in Russia


Eco bag 3/5 kg


Technical product


Medical device Class I


Medical device Class IIa


BPA FREE

THF-MA FREE

MMA-free

TPO FREE

Bisphenol A-free

THF-MA-free

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 ¹⁾	MPa	> 100
Flexural modulus	DIN EN ISO 10477 ¹⁾	MPa	> 2300
Water absorption	DIN EN ISO 10477 ¹⁾	µg/mm ³	< 40
Solubility	DIN EN ISO 10477 ¹⁾	µg/mm ³	< 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)

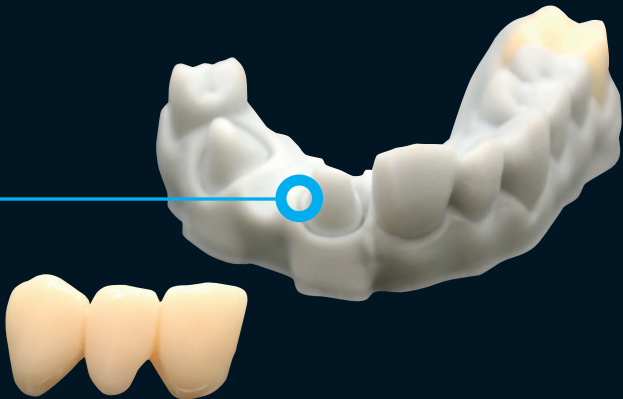
²⁾ Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

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

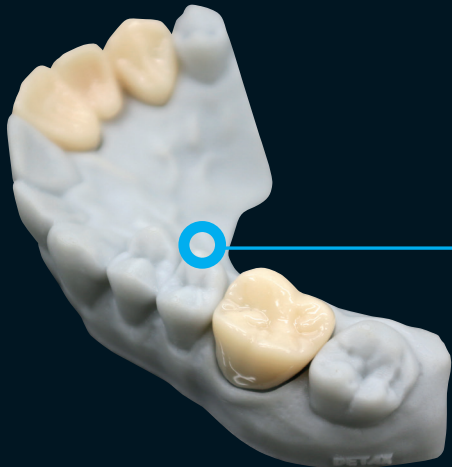


The natural-looking translucent shades (according to VITA classical A1–D4 shade guide) can be esthetically modified for single-crown and bridge restorations.

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



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/mm ³	< 40
Solubility	DIN EN ISO 10477 ¹⁾	µg/mm ³	< 7.5
Hardness	–	Barcol	> 50
Biocompatibility	DIN EN ISO 10993-1 ²⁾	–	fulfilled

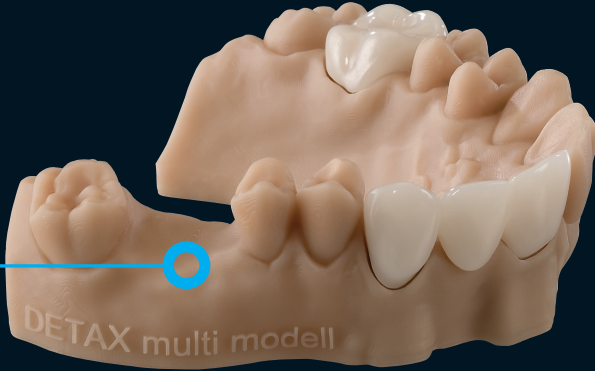
¹⁾ Crown and veneering resins (in keeping with the standard at room temperature)

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

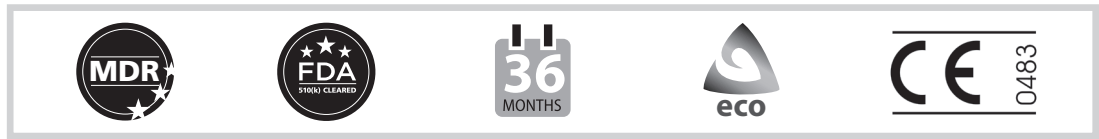
Light-curing formulation for 3D printing of denture bases.

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

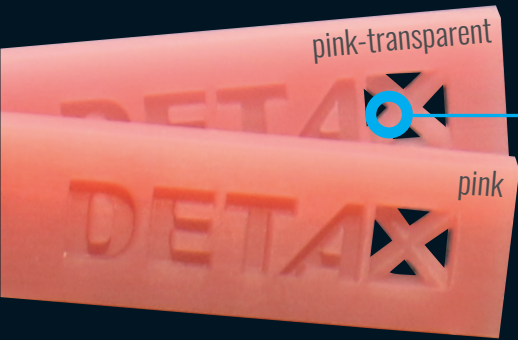


Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-1 ¹⁾	MPa	> 100
Flexural modulus	DIN EN ISO 20795-1 ¹⁾	MPa	> 2500
Water absorption	DIN EN ISO 20795-1 ¹⁾	µg/mm ³	< 32
Solubility	DIN EN ISO 20795-1 ¹⁾	µg/mm ³	< 1.6
Hardness	–	Shore D	> 83
Biocompatibility	DIN EN ISO 10993-1 ²⁾	–	fulfilled

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

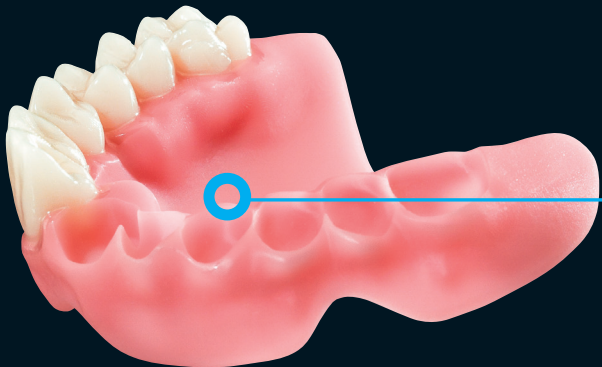
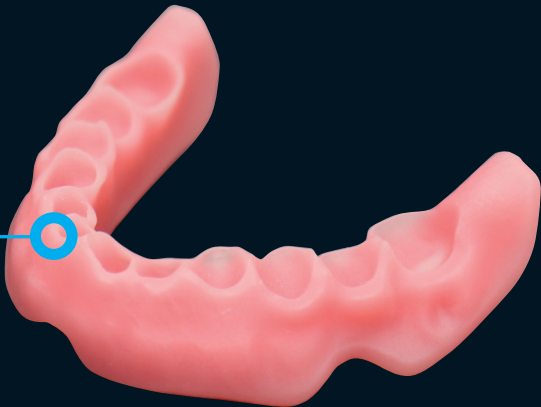
²⁾ Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

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

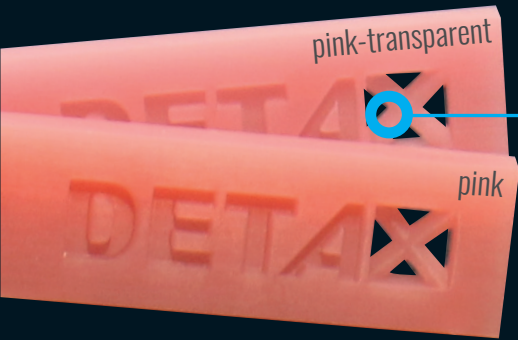


Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-1 ¹⁾	MPa	> 65
Flexural modulus	DIN EN ISO 20795-1 ¹⁾	MPa	> 2000
Water absorption	DIN EN ISO 20795-1 ¹⁾	µg/mm ³	< 32
Solubility	DIN EN ISO 20795-1 ¹⁾	µg/mm ³	< 1.6
Hardness	–	Shore D	> 80

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

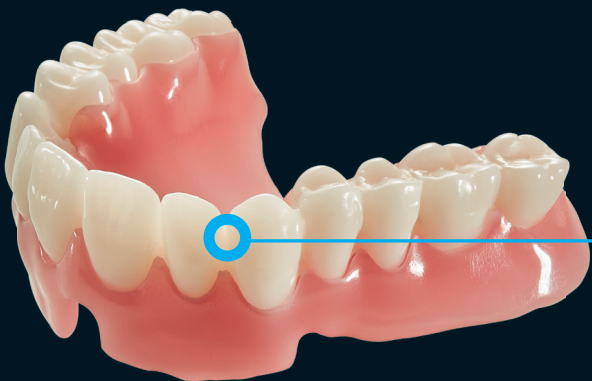
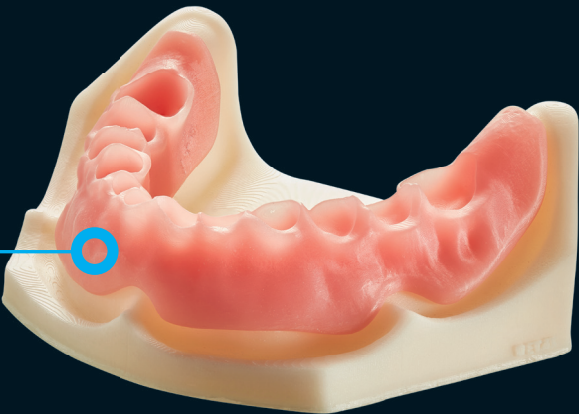
04436	FREEPRINT® DENTURE IMPACT pink-transparent*	1.000 g
04437	FREEPRINT® DENTURE IMPACT pink*	1.000 g

*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.

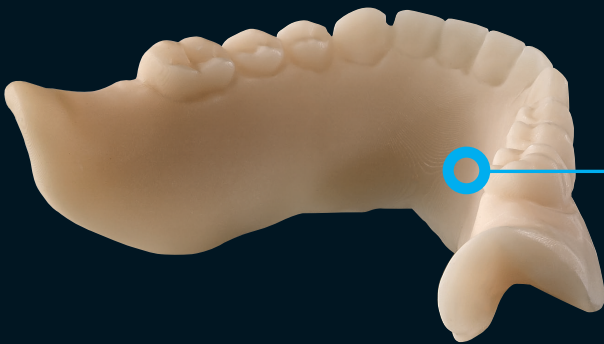
Color: A2
Wavelength: 385 nm
Medical device Class IIa

- Fast, material-saving production of functional try-ins
- Easy control of phonetics
- Easy to process
- MMA- & THF-MA-free



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)



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

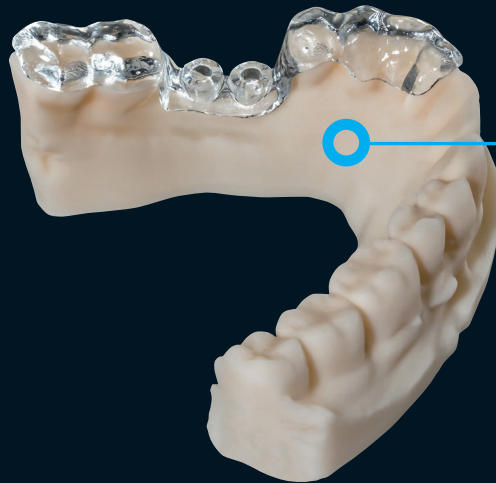


Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 20795-2 ¹⁾	MPa	> 75
Flexural modulus	DIN EN ISO 20795-2 ¹⁾	MPa	> 1650
Water absorption	DIN EN ISO 20795-2 ¹⁾	µg/mm ³	< 32
Solubility	DIN EN ISO 20795-2 ¹⁾	µg/mm ³	< 5
Hardness	–	Shore D	> 82
Biocompatibility	DIN EN ISO 10993-1 ²⁾	–	fulfilled

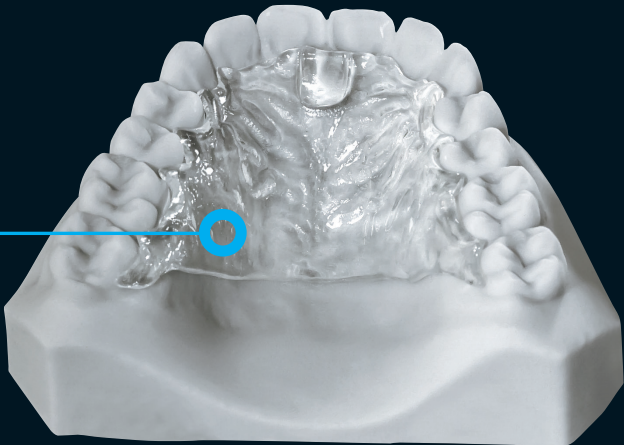
¹⁾ Dentistry: Orthodontic resins (in keeping with the standard at room temperature)

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



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/mm ³	< 32
Solubility	DIN EN ISO 20795-2 ¹⁾	µg/mm ³	< 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

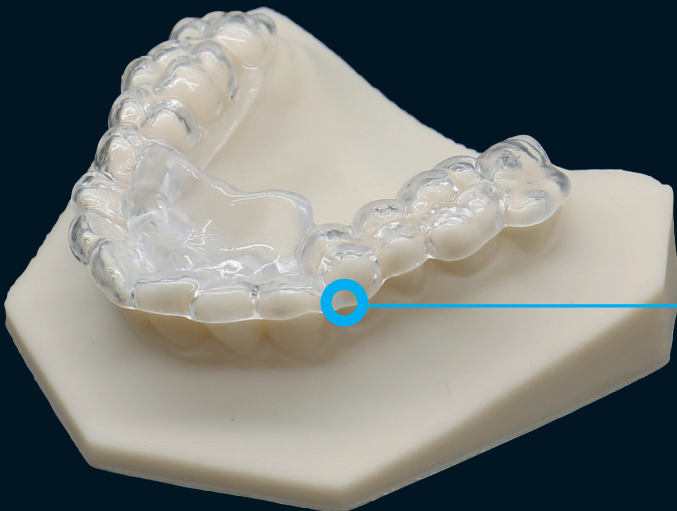
02080	FREEPRINT® SPLINT 2.0	500 g
02076	FREEPRINT® SPLINT 2.0	1.000 g



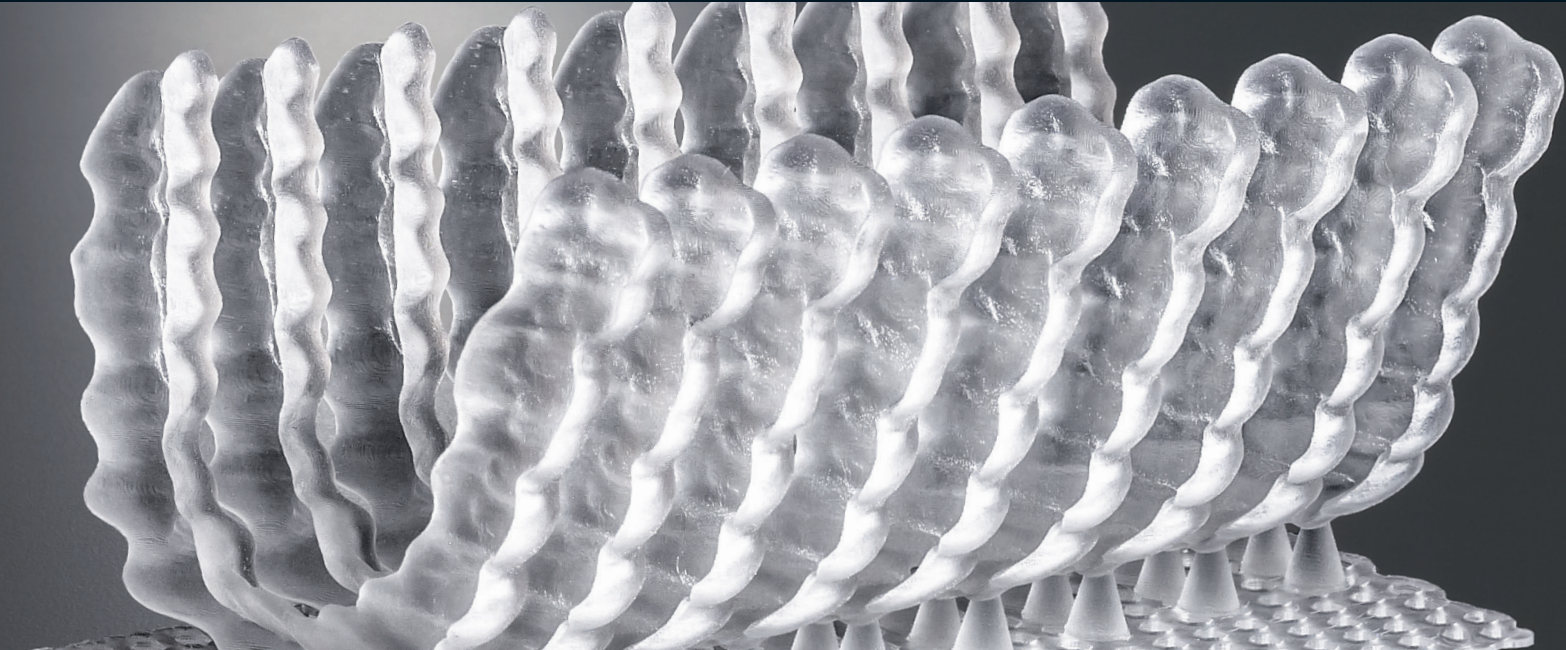
Hard occlusal splint, rigid type, with high efficiency.



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



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/mm ³	< 32	< 32
Solubility	DIN EN ISO 20795-2 ³⁾	µg/mm ³	< 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)

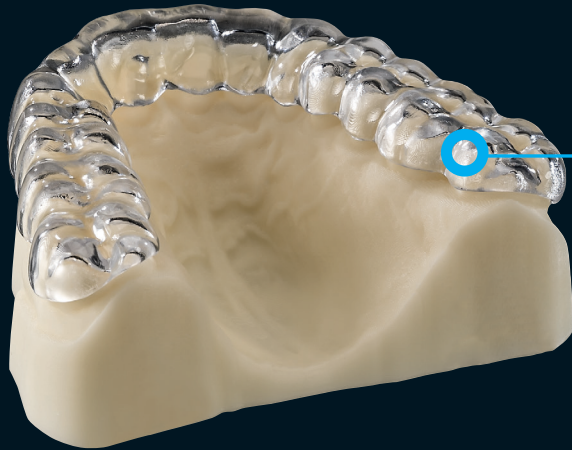
04433	FREEPRINT® SPLINTMASTER TAFF	1.000 g
04432	FREEPRINT® SPLINTMASTER FLEX	1.000 g



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



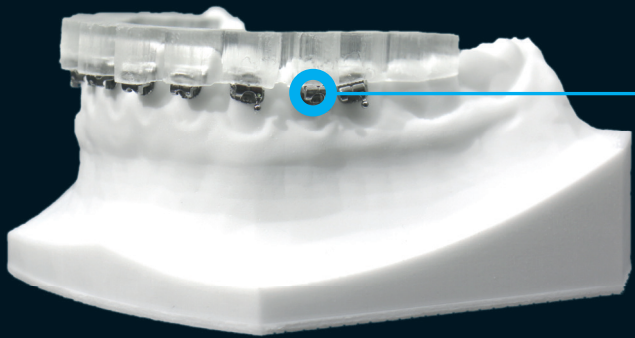
Parameters	Standard	Unit	Results
Tensile strength	DIN EN ISO 527-1 ¹⁾	MPa	> 8
Tensile elongation	DIN EN ISO 527-1 ¹⁾	–	> 60 %
Tear propagation resistance	DIN EN ISO 34-1 ²⁾	N/mm	> 35
Hardness	–	Shore A	> 90
Biocompatibility	DIN EN ISO 10993-1 ³⁾	–	fulfilled

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

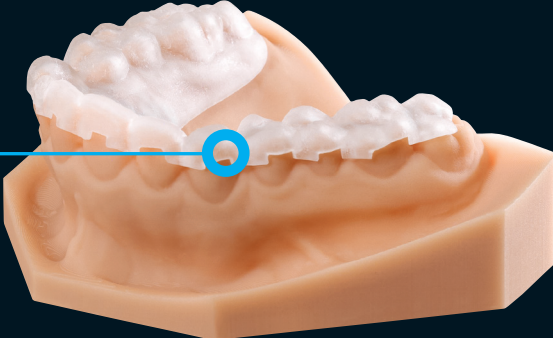
²⁾ Thermoplastic elastomers: Determination of tear propagation resistance (in keeping with the standard at room temperature)

³⁾ Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system

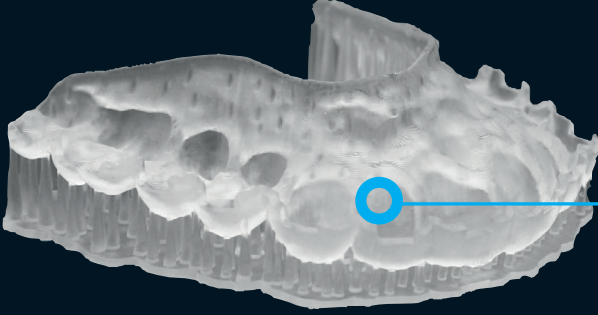
04248	FREEPRINT® IBT	500 g
04249	FREEPRINT® IBT	1.000 g



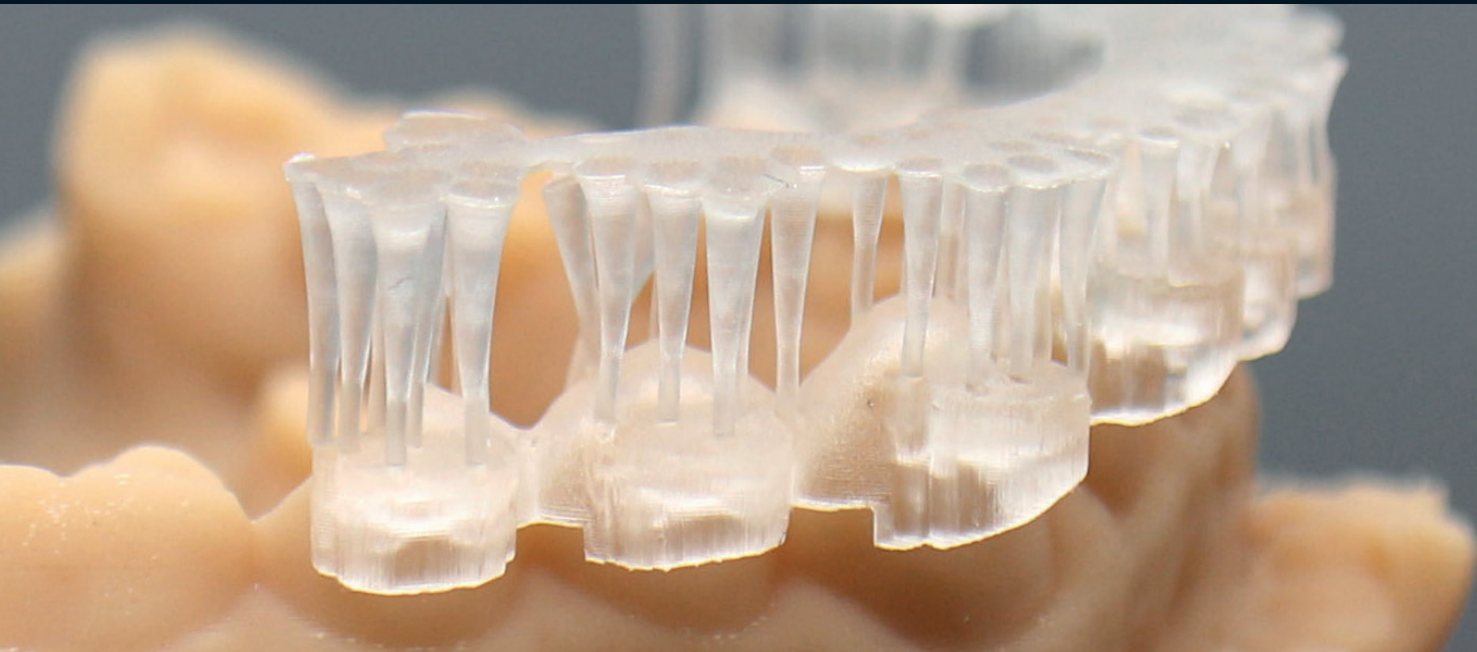
Easy, precise positioning and application of the brackets due to the indirect bonding technique.



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

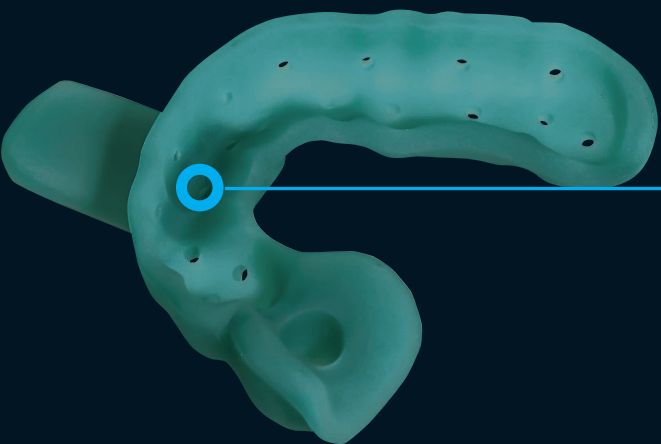
- High bending & breaking strength
- Low viscosity
- Printable with 200 µm layer thickness
- MMA- and THF-MA-free, tasteless



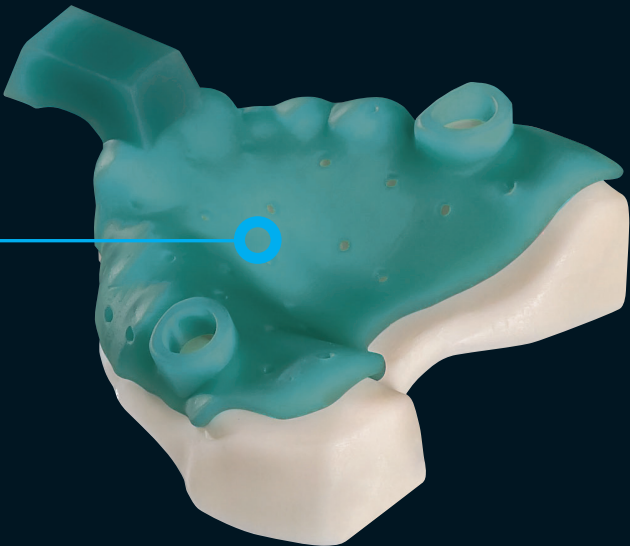
Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178 ¹⁾	MPa	> 90
Flexural modulus	DIN EN ISO 178 ¹⁾	MPa	> 1900
Hardness	–	Shore D	> 84
Biocompatibility	DIN EN ISO 10993-1 ²⁾	–	fulfilled

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

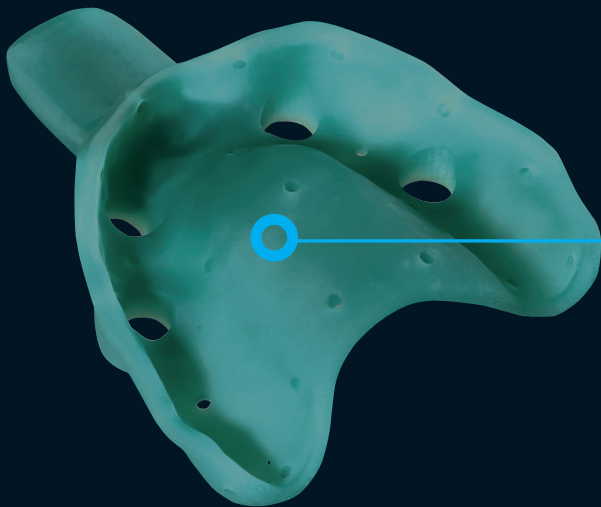
²⁾ Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system



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



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 3D printing of dental master and working models.

Colors: ivory, gray, sand
Wavelength: 380 – 405 nm
Technical product

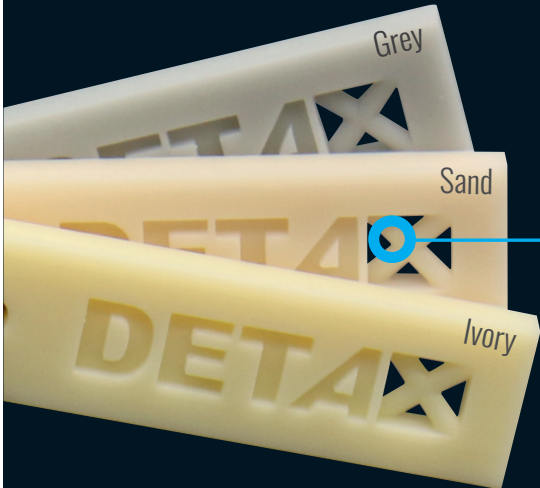
- Fast-printing
- Maximum surface hardness
- Dimensionally stable
- Bisphenol A- & MMA-free



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

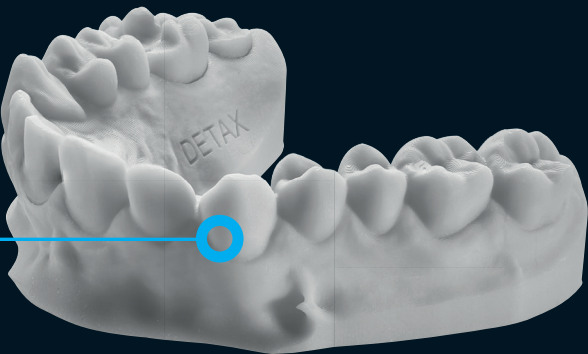
¹⁾ Resins: Determination of flexural strength (in keeping with the standard at room temperature)

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

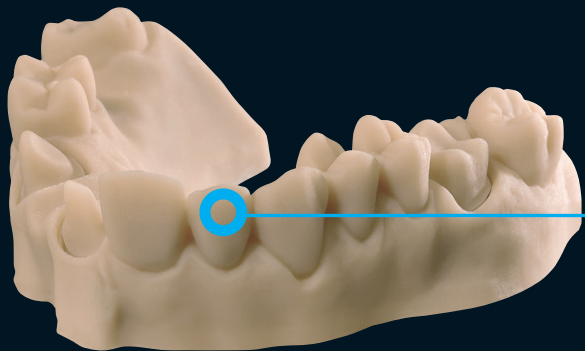


Haptics and stability meet the high requirements in model making.

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



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)

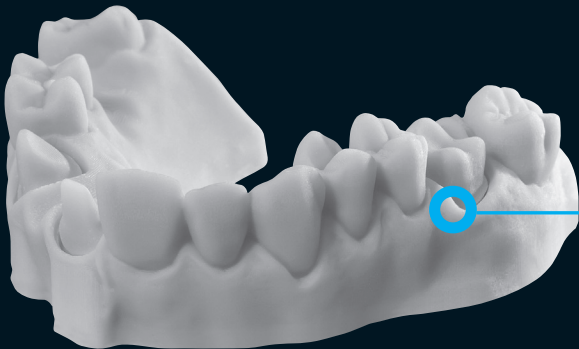
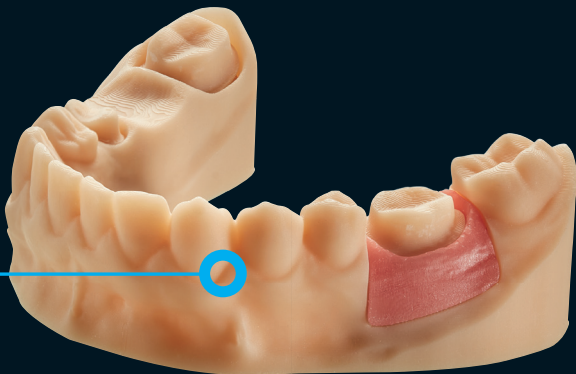
Caramel	1.000 g	02850	5 kg	04015
Grey	1.000 g	02177	5 kg	04106
Light grey	1.000 g	02099	5 kg	04107
Sand	1.000 g	02128	5 kg	04117
White*	1.000 g	02148	5 kg	04118

*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

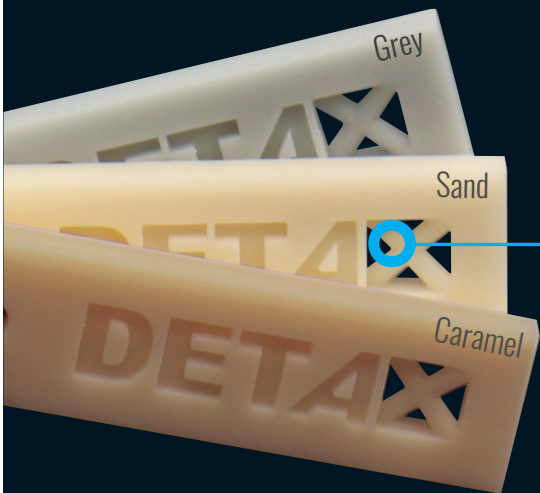
- Fast-printing
- Maximum surface hardness
- Dimensionally stable
- Bisphenol A-, MMA-, THF-MA and TPO-free



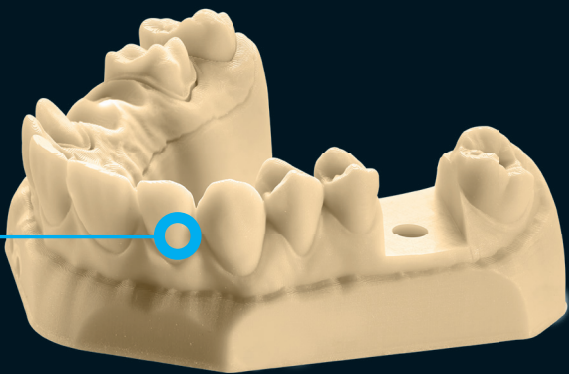
Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178 ¹⁾	MPa	> 90
Flexural modulus	DIN EN ISO 178 ¹⁾	MPa	> 2000
Hardness	–	Shore D	> 82

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

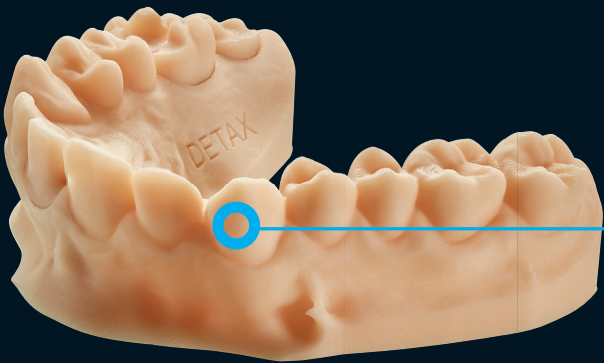
04440	FREEPRINT® MODEL PRO caramel	1.000 g
04438	FREEPRINT® MODEL PRO grey	1.000 g
04439	FREEPRINT® MODEL PRO sand	1.000 g



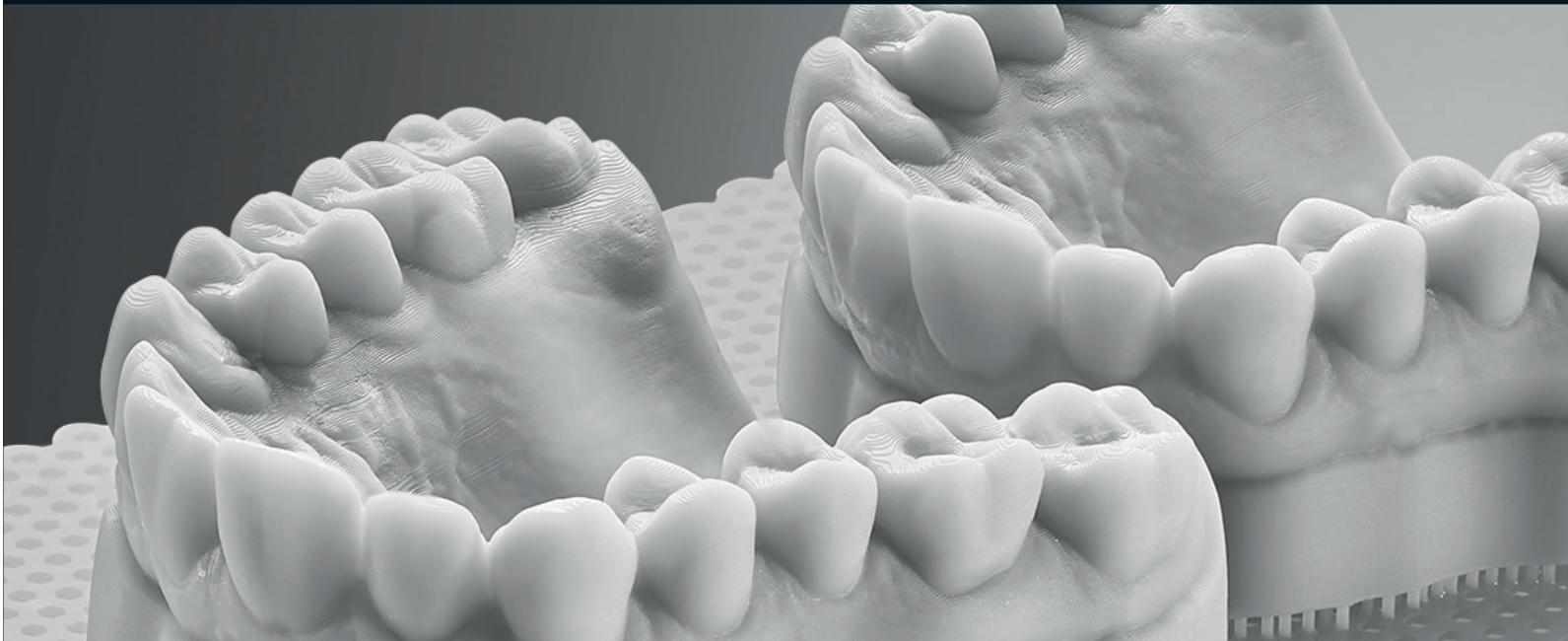
The technical setting of the material meets all requirements for color and its appearance, as well as the haptics.



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

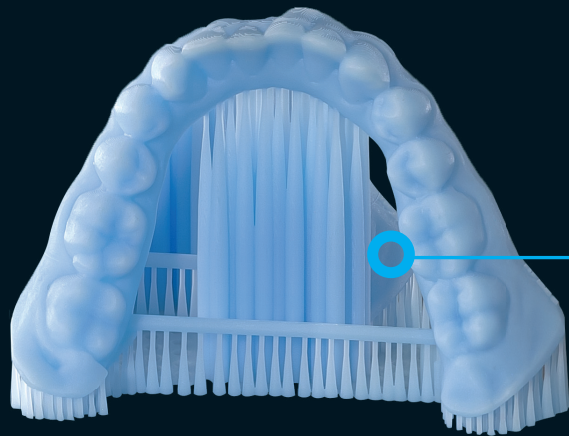
- High temperature resistance
- Maximum edge strength
- Plaster-like appearance & haptics
- Precise detail reproduction
- MMA-free



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)

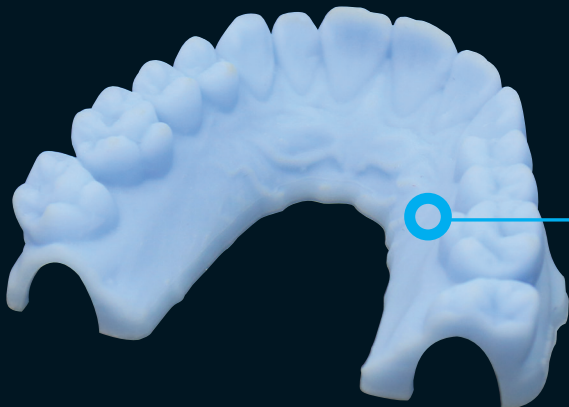
02332	FREEPRINT® MODEL T	1.000 g
04322	FREEPRINT® MODEL T	5 kg



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



36
MONTHS



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)



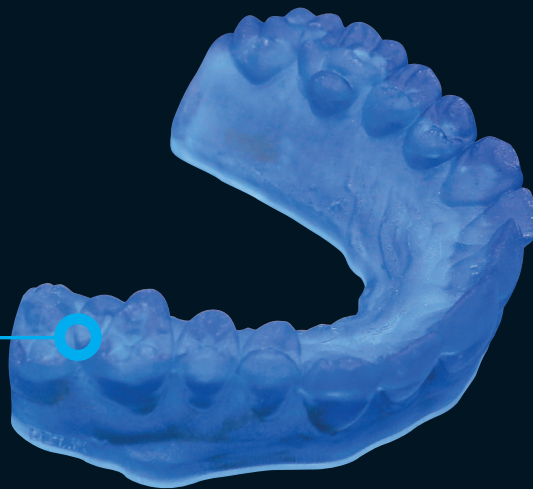
03105

FREEPRINT® MODEL WW

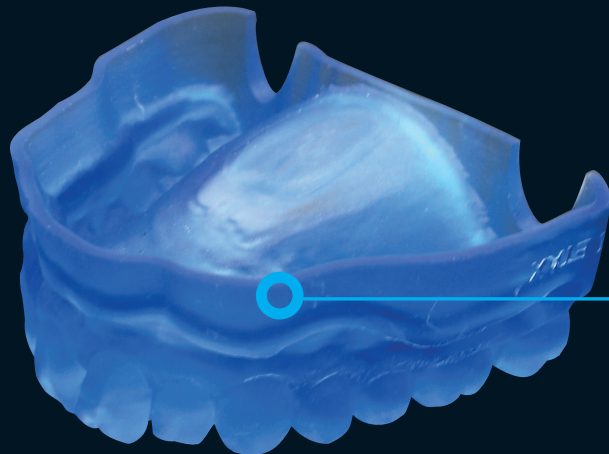
1.000 g



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

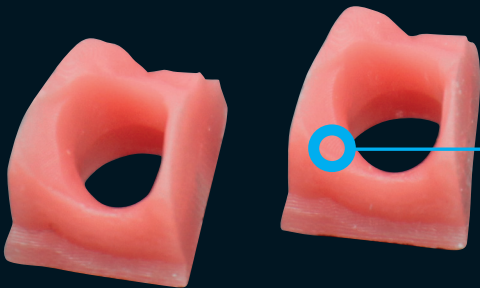
- Excellent elasticity and tear resistance
- Natural gingiva esthetics
- Dimensionally stable
- No subsequent shrinkage
- Bisphenol A-, MMA- and THF-MA-free



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)

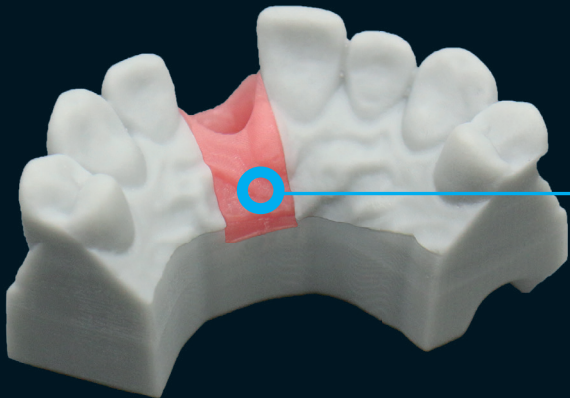
02820	FREEPRINT® GINGIVA	500 g
02843	FREEPRINT® GINGIVA	1.000 g



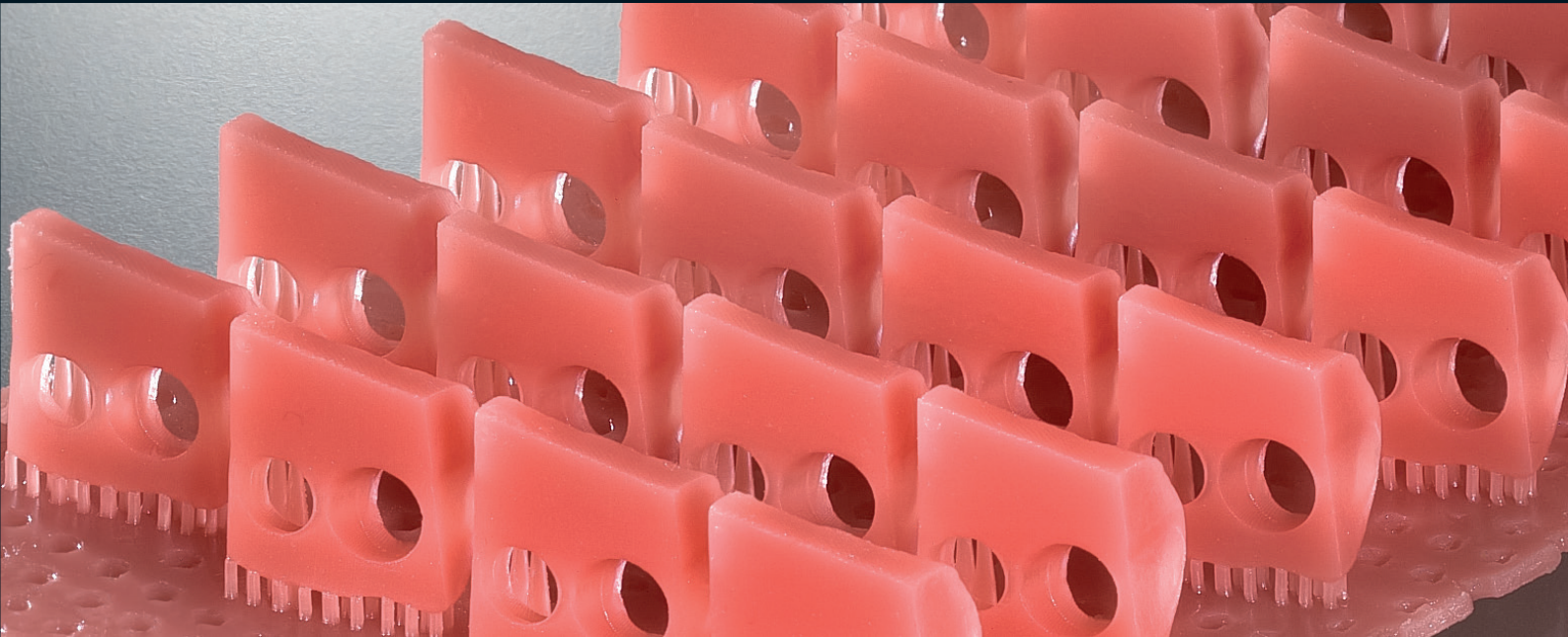
Permanently ductile, even during long storage.



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

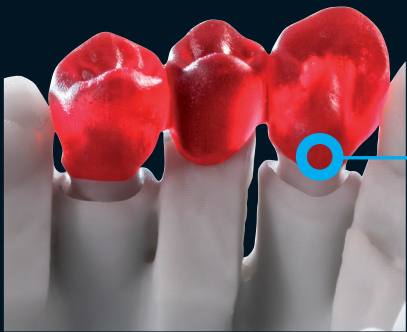
- Residue-free burning out
- Distortion-free and precise, even for delicate constructions
- Suitable for phosphate-bonded embedding materials
- Low viscosity for fast cleaning
- MMA & THF-MA free



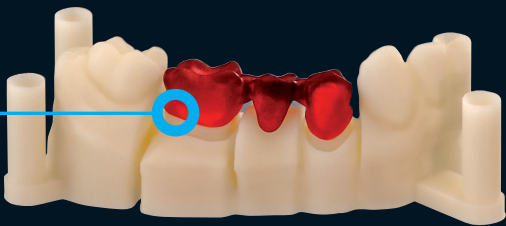
Parameters	Standard	Unit	Results
Flexural strength	DIN EN ISO 178 ¹⁾	MPa	> 70
Flexural modulus	DIN EN ISO 178 ¹⁾	MPa	> 1700
Bakeout temperature	–	–	1 h @ 800 °C
Combustion residue	–	–	< 0.1%

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.



FREPRINT®
MED

FREPRINT®
TEC

CO-BRANDING
MED & TEC



VALIDATED
Printing Process



BIOCOMPATIBLE
ISO 10993



CURRENT
VALIDATION TABLE
WWW.DETAX.COM

[illegible]

version: January 24, 2024

PROCESS VALIDATION CURING DEVICES

FREEPRINT® MED	Qualification		LED 																
	<input checked="" type="checkbox"/> Done <input type="checkbox"/> In process <input type="checkbox"/> On request	 NK Optik Oteflash G171 N2	 NK Optik Oteflash 250/500	 Rapid Shape RS cure	 Rapid Shape RS cure XL	 Straumann P Cure	 Ivoclar PragaPrint Cure	 Dentalarm Photopol	 Ackuretta CURIE Plus	 Drevo PCU LED N2	 Formlabs Form Cure	 Hey Gears PCU 3.0	 Meccatroncure BB-Cure	 Phrozen Phrozen Cure	 Prusa Research Medical CW one	 Shining 3D FabCure	 Dentsply Sirona Primeprint PPU	 Sera SHERAprint Cure	
	TEMP 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>							
	CROWN 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
	DENTURE 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>							
	DENTURE IMPACT 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>									
	Q 3/24 ORTHO 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>									
	SPLINT 2.0 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>									
	SPLINTMASTER 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>									
	IBT 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>									
TRAY 2.0 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>										
TRYIN 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>										
FREEPRINT® TEC	MODEL 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	MODEL 2.0 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	MODEL PRO 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	MODEL T 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	MODEL WW 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>											
	GINGIVA 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	CAST 2.0 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
CO-BRANDING MED & TEC	Primeprint (made by DETAX) 																<input checked="" type="checkbox"/>		
	SHERAprint Splint Taft/Flex (made by DETAX) 																	<input checked="" type="checkbox"/>	

version: January 24, 2024

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@

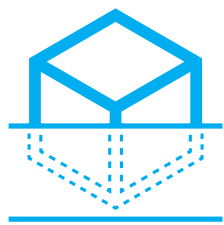
3D WORKFLOW

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.

SCAN

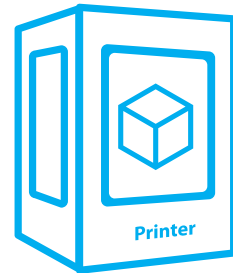


Digitization of the patient's initial situation is the basis for the digital manufacturing process. It is done using an intraoral scanner, or by scanning the model. Using the data thus generated, a three-dimensional surface structure is generated, which can then be transferred to a design software.

DESIGN

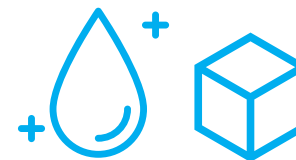


PRINTING



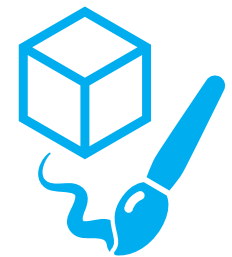
For a precise print job, the setting parameters of the corresponding material in the printer are necessary. These data are used not only to control the exposure process for the material, but also to determine the corresponding movement mechanics of the printers. Coordination of these processes is the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

CLEANING



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.

FINISHING



#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



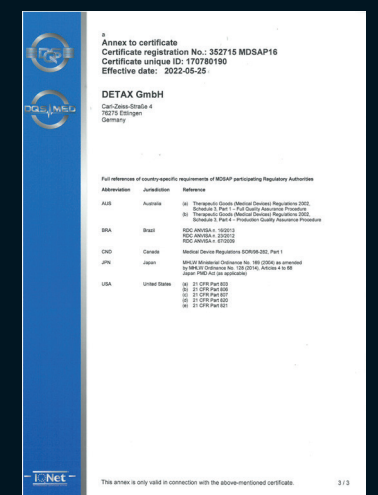
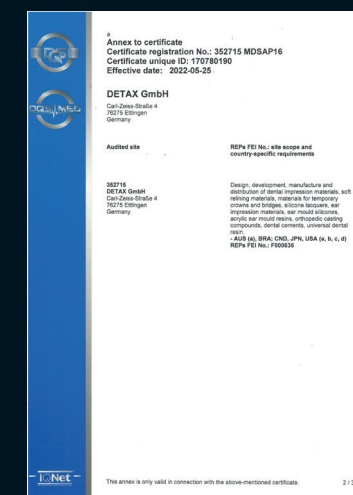
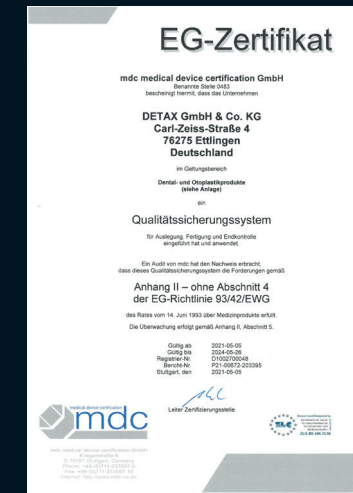
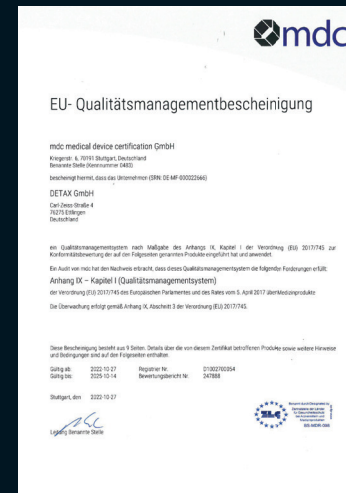
All FREEPRINT® Class IIa resins have been MDR-certified since October 2020. Thus, DETAX 3D materials are among the first of its sector with MDR certification.



The 3D premium printing materials FREEPRINT® CROWN, FREEPRINT® TEMP and FREEPRINT® 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.





DETAX GmbH Carl-Zeiss-Str. 4 · D-76275 Ettlingen/Germany
Tel. +49 72 43/510-0 · Fax: +49 72 43/510-100 · www.detax.com · post@detax.com