

detax



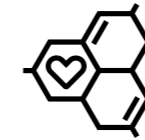
Premium 3D dental resins

dx 3D Guide 2025



detax

Materials that matter



Welcome to the world of detax

For over 70 years, we have been dedicated to developing high-quality silicones and composites for dentistry and hearing aid acoustics. Our innovative materials empower patients to regain their quality of life and restore their smiles.

Ideas are our most important raw materials

Our passion for developing new products is our driving force – time and again, medical products from Detax set new standards in audio and dental technology.

Quality made in Ettlingen

Not only do we constantly invest in research, but we also manufacture our products ourselves in our factory on the company premises in Ettlingen. This gives us continuous control over what is most important to us in our work: its quality.

Partnership to go

Medical products from Detax are valued in over 100 countries around the world. To ensure safe distribution, Detax works with selected partner companies in the target countries.

The best thing about us is the we

A respectful attitude towards our business partners and our staff is important to us. Friendly appreciation determines the way we treat each other and people outside the company.

Detax is growing and our teams are also expanding, which is why we welcome every application. From initial contact and onboarding to update meetings and further training: We accompany and support every employee in all phases of their working life.

3D resins by detax



Material type							
Application		Removable denture bases, total prosthesis	Removable denture bases, total prosthesis	Removable partial dentures, flexible	Permanent crowns, denture teeth, Long-term temporary bridges	Temporary crowns & bridges	Individual functional try-ins
Color		Pink-transparent, pink	Pink-transparent, pink	Pink-transparent, clear	A1, A2, A3, B1, B3, C2, D3, BL	A1, A2, A3	A2
Medical Device Class	MDR	Ila	pending	pending	Ila	Ila	Ila
	FDA	II	pending	pending	II	II	I
	NMPA	-	pending	pending	-	-	-
	HC	II	pending	pending	III	II	I



Material type					
Application		Master & working models, situation models, control models	Master & working models, situation models, control models	Thermoforming models	Gingival masks for dental models
Color		Caramel, grey, light grey, sand	Caramel, grey, sand	Light blue	Gingiva
Medical Device Class	MDR	TEC resin	TEC resin	TEC resin	TEC resin
	FDA	TEC resin	TEC resin	TEC resin	TEC resin
	NMPA	I	in process	I	I
	HC	TEC resin	TEC resin	TEC resin	TEC resin



Material type					
Application		Functional splints, retainers, mouthguards, nightguards	Flexible splints, retainers, mouthguards, nightguards	Hard splints	Autoclavable surgical guides, orthodontic base components
Color		Clear-transparent	Clear-transparent	Clear-transparent	Clear-transparent
Medical Device Class	MDR	Ila	Ila	Ila	Ila
	FDA	II	II	I	I
	NMPA	-	-	TEC resin	TEC resin
	HC	II	II	II	II



Material type				
Application		Individual impression trays, functional trays, base plates	Orthodontic bracket transfer trays	Casting technique, burns without residue
Color		Green	Transparent	Red-transparent
Medical Device Class	MDR	I	I	TEC resin
	FDA	I	I	TEC resin
	NMPA	MED resin	-	-
	HC	I	I	TEC resin

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

3D Freeprint® Material


denture/C&B



3D Freeprint® Material

denture

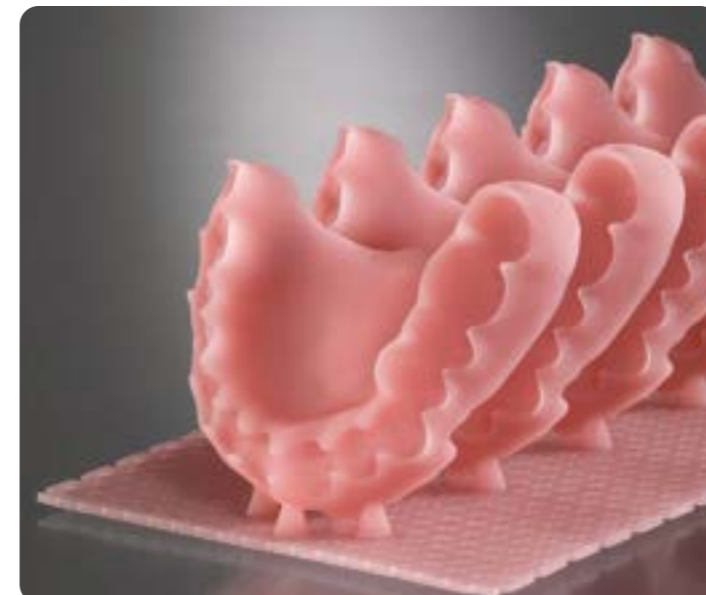
Light-curing formulation for 3D printing of denture bases and total prosthesis.

-  **Colors:**
pink-transparent,
pink
-  **Wavelength:**
385 nm
-  **Medical Product:**
Class IIa

Item No.	Product	Unit
02060 / 02040 / 03518	Freeprint® denture pink-transparent	500 g / 1.000 g / 5 kg
04092 / 03298	Freeprint® denture pink	1.000 g / 5 kg

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



3D Freeprint® Material

denture impact

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

- Colors: pink-transparent, pink
- Wavelength: 385 nm
- Medical Product: Class IIa

Item No.	Product	Unit
avail May 2025	Freeprint® denture impact pink-transparent	1.000 g
avail May 2025	Freeprint® denture impact pink	1.000 g

Parameters	Standard	
Flexural strength	DIN EN ISO 20795-1 ¹⁾	≈ 80 MPa
Flexural modulus	DIN EN ISO 20795-1 ¹⁾	2150 MPa
Water sorption	DIN EN ISO 20795-1 ¹⁾	< 32 µg/mm ³
Solubility	DIN EN ISO 20795-1 ¹⁾	< 1.6 µg/mm ³
Hardness	-	≈ 83 Shore D
Viscosity	-	700 MPas

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

36
months

TPO
free

Premium
MMA free
THF-MA free
Formula



3D Freeprint® Material

denture flex

3D printing of flexible partial denture bases.

- Colors: pink-transparent, clear
- Wavelength: 385 nm
- Medical Product: Class IIa

Item No.	Product	Unit
avail May 2025	Freeprint® denture flex pink-transparent	1.000 g
avail May 2025	Freeprint® denture flex clear	1.000 g

Parameters	Standard	
Water sorption	DIN EN ISO 20795-1 ¹⁾	< 32 µg/mm ³
Solubility	DIN EN ISO 20795-1 ¹⁾	< 1.6 µg/mm ³
Hardness	-	= 78 Shore D
Elongation	DIN EN ISO 527-1 ¹⁾	≈ > 20 %
Tensile Strength	DIN EN ISO 527-1 ¹⁾	≈ 45 MPa

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

36
months

TPO
free

Premium
MMA free
THF-MA free
Formula



3D Freeprint® Material

crown

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

- Colors:**
A1, A2, A3, B1, B3, C2, D3, BL
- Wavelength:**
385 nm
- Medical Product:**
Class IIa

Item No.	Product	Unit
02372 / 02376	Freeprint® crown A1	500 g / 1.000 g
02378 / 02415	Freeprint® crown A2	500 g / 1.000 g
02417 / 02446	Freeprint® crown A3	500 g / 1.000 g
02481 / 02519	Freeprint® crown B1	500 g / 1.000 g
02645 / 02758	Freeprint® crown B3	500 g / 1.000 g
02766 / 02782	Freeprint® crown C2	500 g / 1.000 g
02783 / 02825	Freeprint® crown D3	500 g / 1.000 g
02845 / 02884	Freeprint® crown BL	500 g / 1.000 g

Parameters	Standard	
Flexural strength	DIN EN ISO 10477 ¹⁾	> 100 MPa
Flexural modulus	DIN EN ISO 10477 ¹⁾	> 2800 MPa
Water absorption	DIN EN ISO 10477 ¹⁾	< 40 µg/mm ³
Solubility	DIN EN ISO 10477 ¹⁾	< 7.5 µg/mm ³
Hardness	-	> 50 Barcol
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



3D Freeprint® Material

temp

Light-curing formulation for 3D printing of temporary crowns & bridges and anterior and posterior tooth restorations.

- Colors:**
A1, A2, A3
- Wavelength:**
385 nm
- Medical Product:**
Class IIa

Item No.	Product	Unit
04058 / 04062	Freeprint® temp A1	500 g / 1.000 g
04059 / 04063	Freeprint® temp A2	500 g / 1.000 g
04060 / 04064	Freeprint® temp A3	500 g / 1.000 g

Parameters	Standard	
Flexural strength	DIN EN ISO 10477 ¹⁾	> 100 MPa
Flexural modulus	DIN EN ISO 10477 ¹⁾	> 2300 MPa
Water absorption	DIN EN ISO 10477 ¹⁾	< 40 µg/mm ³
Solubility	DIN EN ISO 10477 ¹⁾	< 7.5 µg/mm ³
Hardness	-	> 40 Barcol
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



3D Freeprint® Material

tryin

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

-  **Color:**
A2
-  **Wavelength:**
385 nm
-  **Medical Product:**
Class II

Item No.	Product	Unit
04427	Freeprint® tryin A2	1.000 g

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



Materials that matter




3D Freeprint® Material

splint/surgical guide

3D Freeprint® Material

splintmaster taff & flex

Light-curing formulation for 3D printing of flexible splints, retainers, mouthguards and nightguards. In two levels of flexibility: taff – for functional splints, flex – for flexible splints.

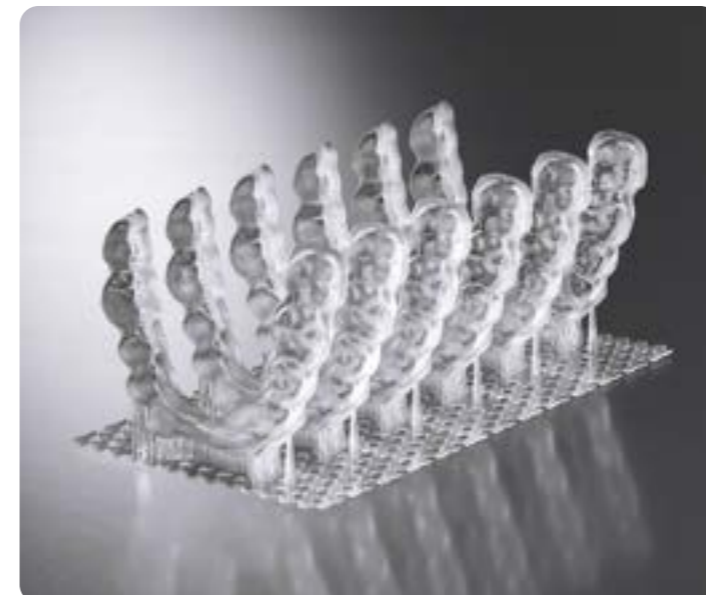
 **Color:** clear-transparent
  **Wavelength:** 385 nm
  **Medical Product:** Class IIa



Item No.	Product	Unit
04433	Freeprint® splintmaster taff	1.000 g
04432	Freeprint® splintmaster flex	1.000 g

Parameters	Standard	taff / flex
Tensile strength	DIN EN ISO 527-1 ¹⁾	> 40 MPa / > 25 MPa
Tensile elongation	DIN EN ISO 527-1 ¹⁾	> 20% / > 50%
Tear propagation resistance	DIN EN ISO 34-1 ²⁾	> 140 N/mm / > 110 N/mm
Hardness	–	> 75 Shore D / > 65 Shore D
Water absorption	DIN EN ISO 20795-2 ³⁾	< 32 µg/mm³ / < 32 µg/mm³
Solubility	DIN EN ISO 20795-2 ³⁾	< 5 µg/mm³ / < 5 µg/mm³
Biocompatibility	DIN EN ISO 10993-1 ⁴⁾	fulfilled / 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⁾ Dentistry: Orthodontic resins (in keeping with the standard at room temperature)
⁴⁾ Biological assessment of medical devices – Part 1: Assessment and testing in the context of a risk management system



3D Freeprint® Material

splint 2.0

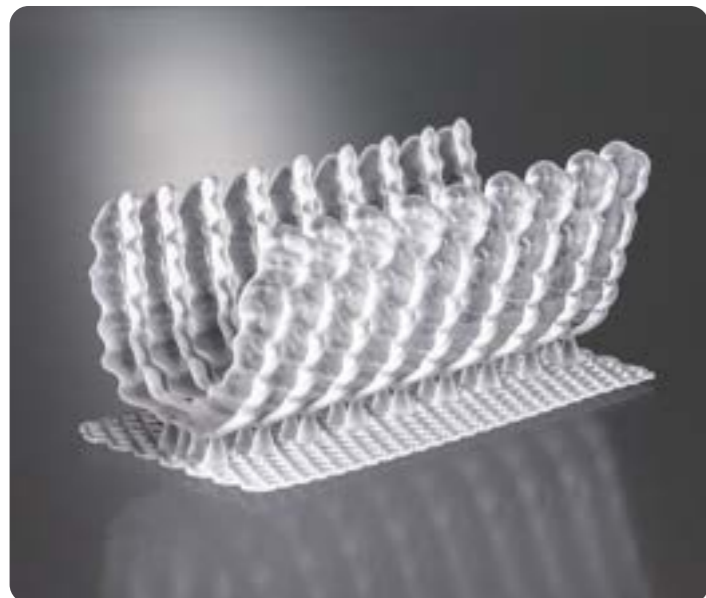
Light-curing formulation for 3D printing of hard splints.

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

Item No.	Product	Unit
02080 / 02076	Freeprint® splint 2.0	500 g / 1.000 g

Parameters	Standard	
Flexural strength	DIN EN ISO 20795-2 ¹⁾	> 80 MPa
Flexural modulus	DIN EN ISO 20795-2 ¹⁾	> 2000 MPa
Water absorption	DIN EN ISO 20795-2 ¹⁾	< 32 µg/mm ³
Solubility	DIN EN ISO 20795-2 ¹⁾	< 5 µg/mm ³
Hardness	-	> 80 Shore D
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



3D Freeprint® Material

ortho

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

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

Item No.	Product	Unit
03989 / 04323	Freeprint® ortho	1.000 g / 5 kg

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



3D Freeprint® Material




model



3D Freeprint® Material

model 2.0

Light-curing formulation for 3D printing of master and working models, situation models, control models.

- 
Colors:
 caramel, light grey,
 grey, sand, white
- 
Wavelength:
 380 – 405 nm
- 
Technical product

Item No.	Product	Unit
02850 / 04015	Freeprint® model 2.0 caramel	1.000 g / 5 kg
02099 / 04107	Freeprint® model 2.0 light grey	1.000 g / 5 kg
02177 / 04106	Freeprint® model 2.0 grey	1.000 g / 5 kg
02128 / 04117	Freeprint® model 2.0 sand	1.000 g / 5 kg
02148 / 04118	Freeprint® model 2.0 white*	1.000 g / 5 kg

* not THF-MA free

Parameters	Standard	
Flexural strength	DIN EN ISO 178 ¹⁾	> 80 MPa
Flexural modulus	DIN EN ISO 178 ¹⁾	> 1700 MPa
Hardness	-	> 84 Shore D




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



3D Freeprint® Material

model pro

Light-curing formulation for 3D printing of master and working models, situation models, control models.

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

Item No.	Product	Unit
04440	Freeprint® model pro caramel	1.000 g
04438	Freeprint® model pro grey	1.000 g
04439	Freeprint® model pro sand	1.000 g

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




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



3D Freeprint® Material

model T

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

-  **Color:**
light blue
-  **Wavelength:**
380 – 405 nm
-  **Technical product**

Item No.	Product	Unit
02332 / 04322	Freeprint® model T	1.000 g / 5 kg

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




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



3D Freeprint® Material

gingiva

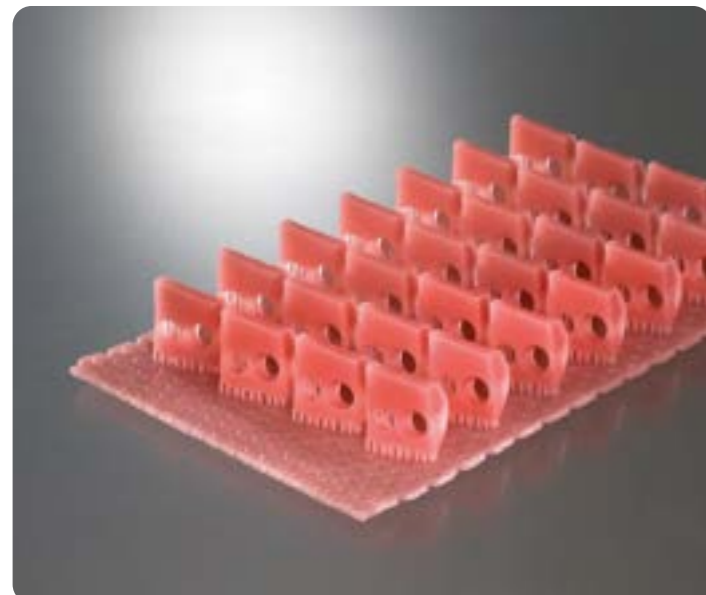
Light-curing formulation for 3D printing of flexible gingival masks for dental models.

-  **Color:**
gingiva
-  **Wavelength:**
380 – 405 nm
-  **Technical Product**

Item No.	Product	Unit
02820 / 02843	Freeprint® gingiva	500 g / 1.000 g

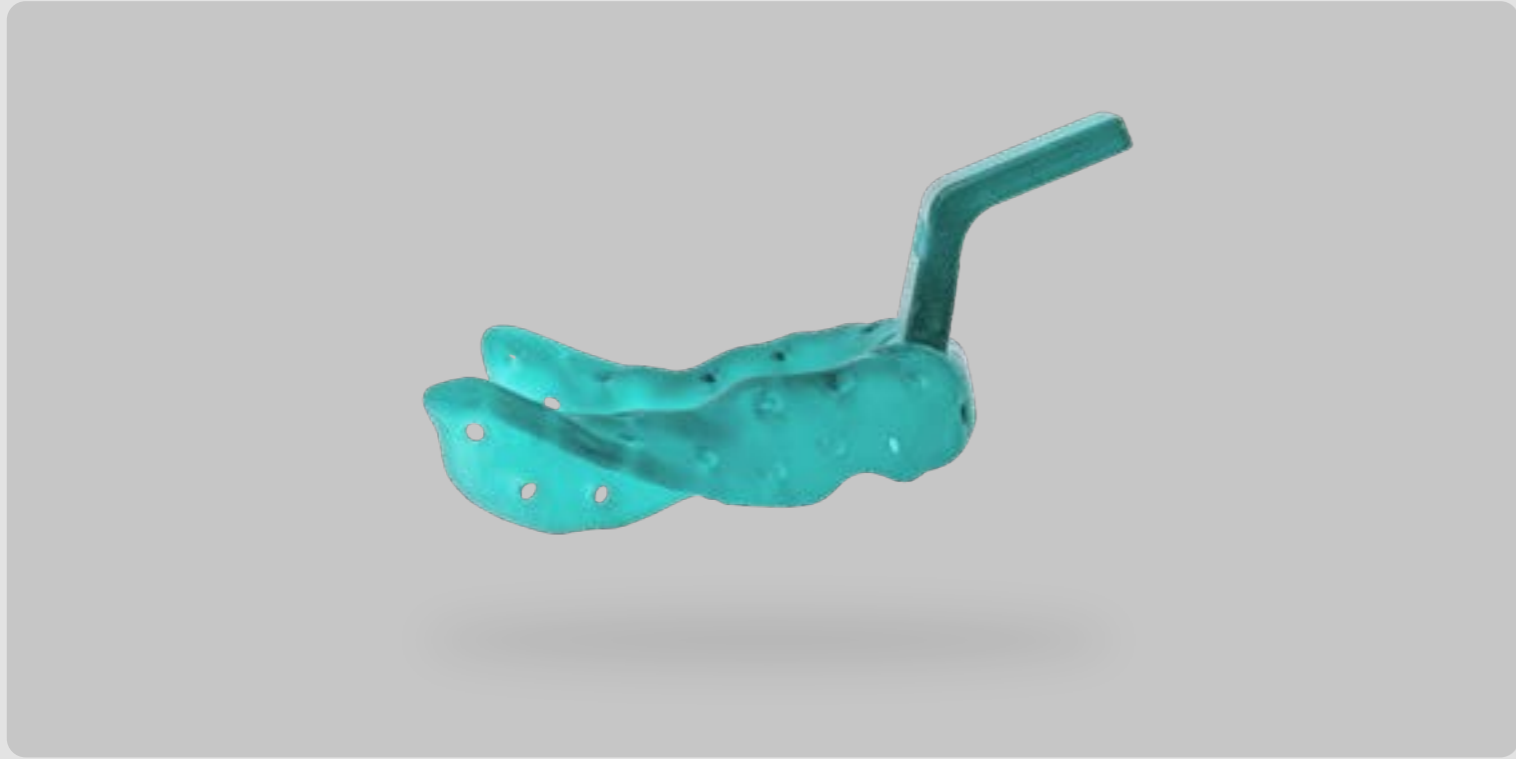
Parameters	Standard	
Tensile strength	DIN EN ISO 527-1 ¹⁾	> 3 MPa
Tensile elongation	DIN EN ISO 527-1 ¹⁾	> 90 %
Hardness	–	> 70 Shore A

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






Materials that matter

3D Freeprint® Material
 tray/ibt/cast



3D Freeprint® Material
 tray 2.0

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

-  **Color:**
green
-  **Wavelength:**
380 – 405 nm
-  **Medical Product:**
Class I

Item No.	Product	Unit
02505	Freeprint® tray 2.0	1.000g

Parameters	Standard	
Flexural strength	DIN EN ISO 178 ¹⁾	> 90 MPa
Flexural modulus	DIN EN ISO 178 ¹⁾	> 1900 MPa
Hardness	–	> 84 Shore D
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



3D Freeprint® Material

ibt

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

- Color:** transparent
- Wavelength:** 385 nm
- Medical Product:** Class I

Item No.	Product	Unit
04249	Freeprint® IBT	1.000 g

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



3D Freeprint® Material

cast 2.0

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

- Color:** red-transparent
- Wavelength:** 380 – 405 nm
- Technical product**

Item No.	Product	Unit
02548 / 02632	Freeprint® cast 2.0	500 g / 1.000 g

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

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



dx validation printer matrix (385 nm)

	denture/C&B				splint/surgical guide				model				tray/ibf/cast			
	denture	denture impact	denture flex	denture crown	denture temp	denture tylin	denture ortho	denture splint 2.0	denture ortho	denture model 2.0	denture model pro	denture modelIT	denture gringiva	denture tray 2.0	denture ibf	denture cast 2.0
ASIGA																
Max	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Max2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Pico2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PRO2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PRO 4K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ropidshape																
ONE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Pro20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D10/D20 Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D30/D40 Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D50+ Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
D70/D90 Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
straumann																
P-Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Qualification	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● validated ● in process Date: 03/2025

dx validation printer matrix (385 nm)

	denture/C&B				splint/surgical guide				model				tray/ibf/cast			
	denture	denture impact	denture flex	denture crown	denture temp	denture tylin	denture ortho	denture splint 2.0	denture ortho	denture model 2.0	denture model pro	denture modelIT	denture gringiva	denture tray 2.0	denture ibf	denture cast 2.0
ivoclar																
PrograPrint PHS																
MICROLAY																
Venus	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Gildewell																
Fastprint.Lb																
MICRAFT																
Prime/Hyper Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Ultra Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Alpha	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
HEYBEARS																
A2D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
A2D-HD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
A3D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Chariside	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WZP																
SoftFlex	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Qualification	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● validated ● in process Date: 03/2025

dx validation printer matrix (405 nm)

	denture/C&B				splint/surgical guide				tray/ibf/cast				
	denture impact	denture fix	denture crown	denture temp	denture tryin	denture ortho	denture splint 2.0	denture ortho	denture splint 2.0	denture tray 2.0	denture ibf	denture cast 2.0	
ACKURETTA													
SOL													
formilabs													
Form 4B													
RAYSHAPE													
Edge EZ													
MICROLAY													
Eve Pro													
Aidite													
CFP-100													
phrozen													
Sonic 4K													
Qualification	●	●	●	●	●	●	●	●	●	●	●	●	●

● validated ● in process

Date: 03/2025

dx validation curing matrix

	denture/C&B				splint/surgical guide				tray/ibf/cast				
	denture impact	denture fix	denture crown	denture temp	denture tryin	denture ortho	denture splint 2.0	denture ortho	denture splint 2.0	denture tray 2.0	denture ibf	denture cast 2.0	
MINK-Optik													
Orolean G71N2													
NK Flash 250/500													
NK Flash 150													
ASIGA													
Asiga Cure													
ropidshape													
RS-Cure													
RS-Cure-XL													
straumann													
P-Cure													
dentalfarm													
Photopd													
Gildewell													
LCD													
MITC													
BB-Cure													
Qualification	●	●	●	●	●	●	●	●	●	●	●	●	●

● validated ● in process

Date: 03/2025



detax

detaxgmbH

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