

detax



Premium 3D dental resins

dx 3D US 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

denture/C&B



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	IIa	IIa	IIa	IIa	IIa	IIa
	FDA	II	II	pending	II	II	I
	NMPA	–	–	pending	–	–	–
	HC	II	II	pending	III	II	I

model



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

splint/surgical guide



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	IIa	IIa	IIa	IIa
	FDA	II	II	I	I
	NMPA	–	–	TEC resin	TEC resin
	HC	II	II	II	II

others



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

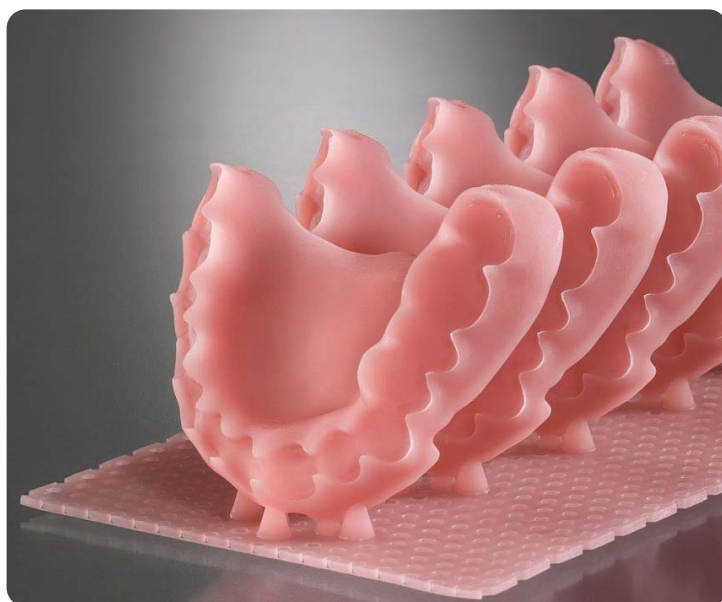
 **Medical Product:**
Class II

Item No.	Product	Unit	510(k)
02133	Freeprint® denture pink-transparent	500 g	K200461
02171	Freeprint® denture pink-transparent	1.000 g	K200461
02971	Freeprint® denture pink	1.000 g	K200461

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/mm³
Solubility	DIN EN ISO 20795-1 ¹⁾	< 1.6 µg/mm³
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 II

Item No.	Product	Unit	510(k)
04599	Freeprint® denture impact pink-transparent	1.000 g	K200461
04598	Freeprint® denture impact pink	1.000 g	K200461

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/mm³
Solubility	DIN EN ISO 20795-1 ¹⁾	< 1.6 µg/mm³
Hardness	–	≈ 83 Shore D
Viscosity	–	700 MPas

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









3D Freeprint® Material

denture flex

3D printing of flexible partial denture bases.

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

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

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 II

Item No.	Product	Unit	510(k)
04365 / 04364	Freeprint® crown A1	500 g / 1.000 g	K222877
04367 / 04366	Freeprint® crown A2	500 g / 1.000 g	K222877
04369 / 04368	Freeprint® crown A3	500 g / 1.000 g	K222877
04371 / 04370	Freeprint® crown B1	500 g / 1.000 g	K222877
04373 / 04372	Freeprint® crown B3	500 g / 1.000 g	K222877
04377 / 04376	Freeprint® crown C2	500 g / 1.000 g	K222877
04379 / 04378	Freeprint® crown D3	500 g / 1.000 g	K222877
04375 / 04374	Freeprint® crown BL	500 g / 1.000 g	K222877

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



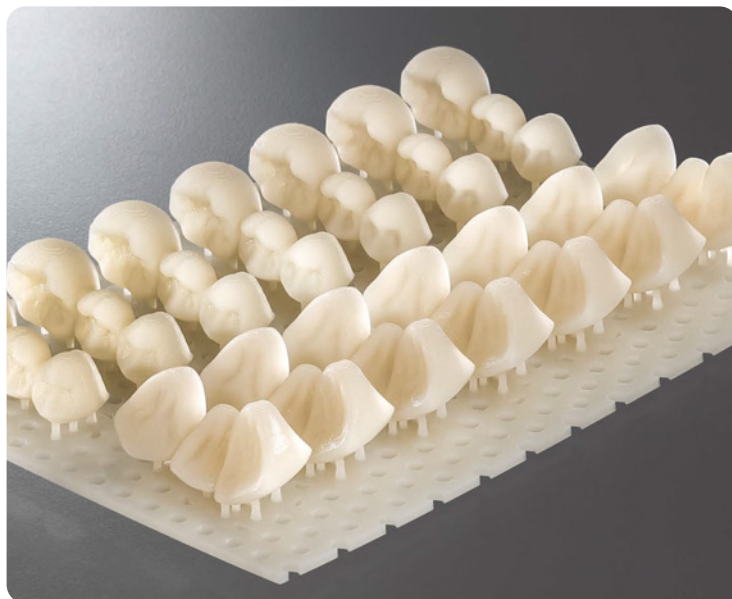
Medical Product:
Class II

Item No.	Product	Unit	510(k)
02014 / 02120	Freeprint® temp A1	500 g / 1.000 g	K200273
02108 / 02130	Freeprint® temp A2	500 g / 1.000 g	K200273
02119 / 02131	Freeprint® temp A3	500 g / 1.000 g	K200273

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 I

Item No.	Product	Unit	FDA Listing
O4101	Freeprint® tryin A2	1.000 g	D280112

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









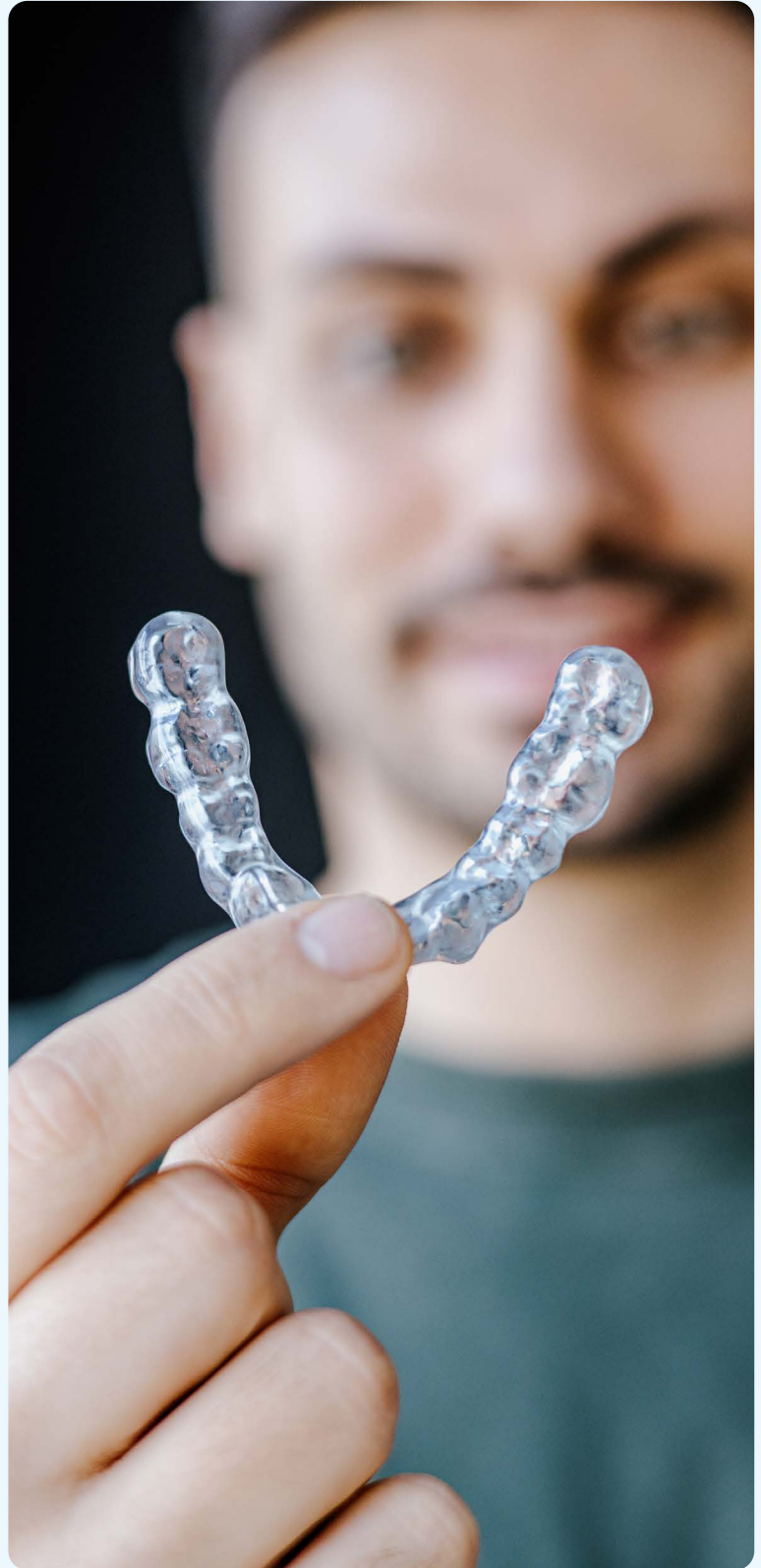


detax

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 II

Item No.	Product	Unit	510(k)
04442	Freeprint® splintmaster taff	1.000 g	K232448
04441	Freeprint® splintmaster flex	1.000 g	K232448

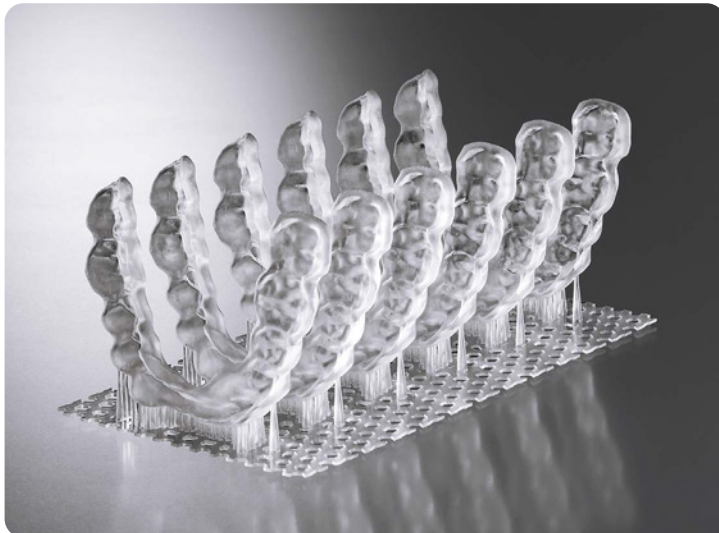
Parameters	Standard	taff / flex
Tensile strength	DIN EN ISO 527-1 ¹⁾	> 40 MPa / > 25 MPa
Tensile elongation	DIN EN ISO 527-1 ¹⁾	> 20 % / > 50 %
Tear propagation resistance	DIN EN ISO 34-1 ²⁾	> 140 N/mm / > 110 N/mm
Hardness	–	> 75 Shore D / > 65 Shore D
Water absorption	DIN EN ISO 20795-2 ³⁾	< 32 µg/mm³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

Item No.	Product	Unit	FDA Listing
02076	Freeprint® splint 2.0	1.000 g	D280112

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/mm³
Solubility	DIN EN ISO 20795-2 ¹⁾	< 5 µg/mm³
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

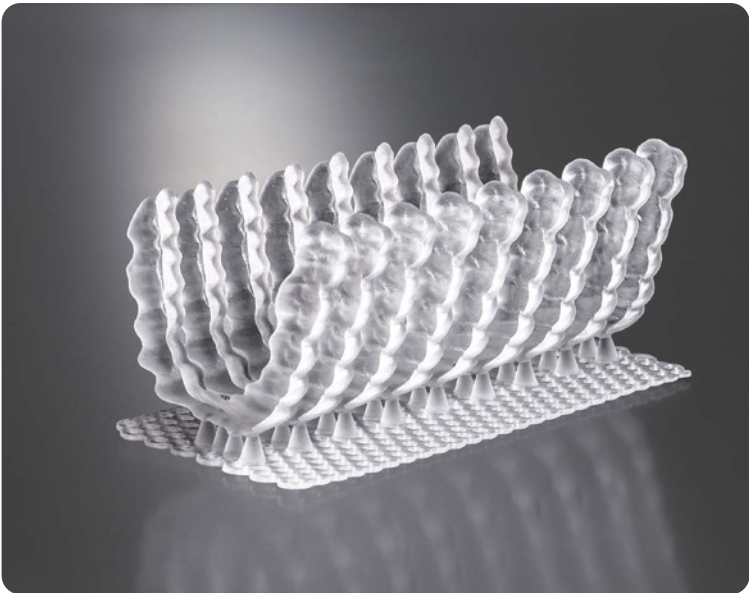












3D Freeprint® Material

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 I

Item No.	Product	Unit	FDA Listing
04095	Freeprint® ortho	1.000g	D280112

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

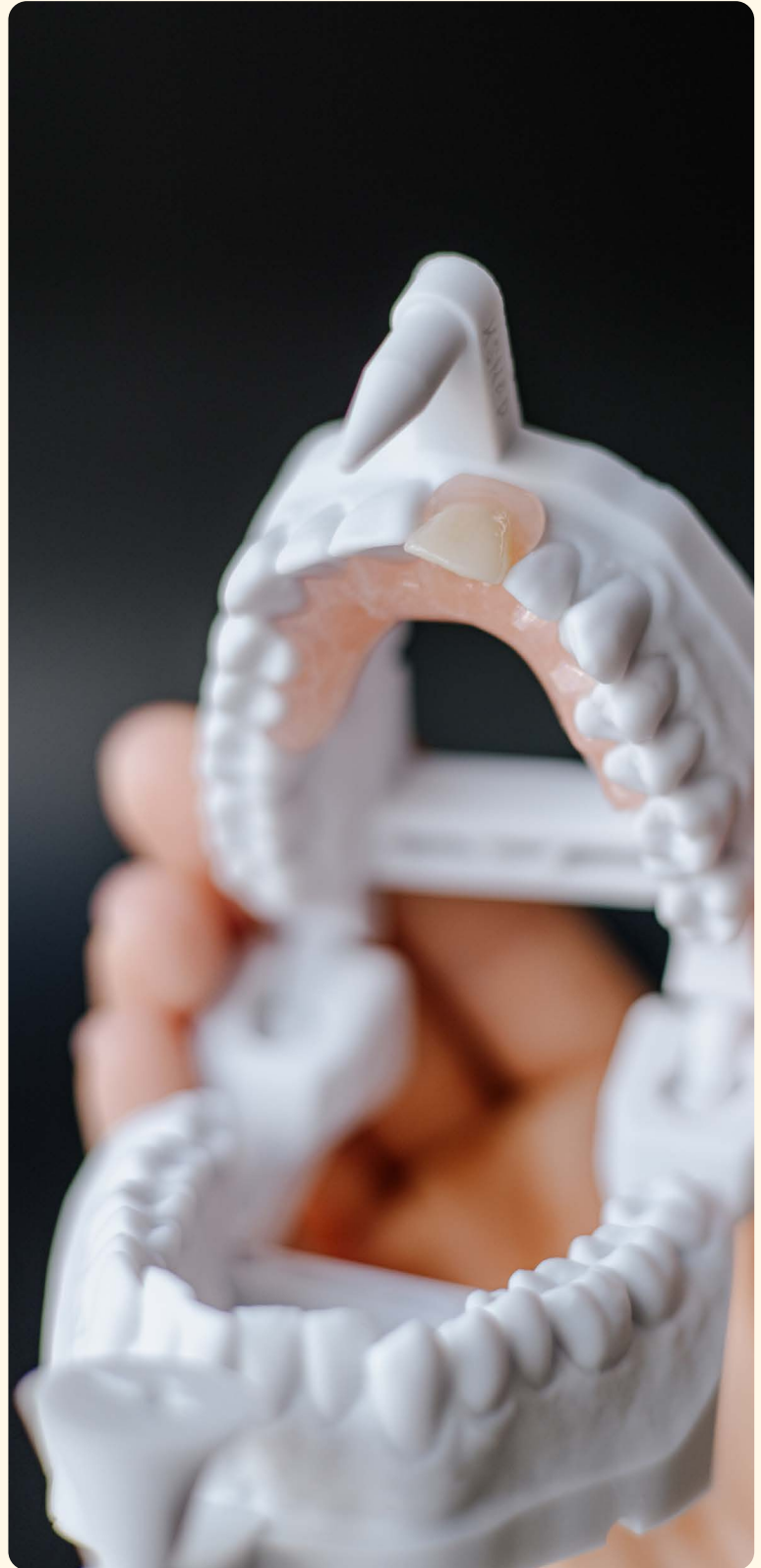
¹⁾ Dentistry: Orthodontic resins (in keeping with the standard at room temperature)

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	Freeprint® model 2.0 caramel	1.000 g
02099	Freeprint® model 2.0 light grey	1.000 g
02177	Freeprint® model 2.0 grey	1.000 g
02128	Freeprint® model 2.0 sand	1.000 g
02148	Freeprint® model 2.0 white*	1.000 g

* 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,
light grey, sand

 **Wavelength:**
380 – 405 nm

 **Technical
Product**

Item No.	Product	Unit
04440 / 02585	Freeprint® model pro caramel	1.000 g / 5 kg
04438 / 02574	Freeprint® model pro grey	1.000 g / 5 kg
02546 / 02558	Freeprint® model pro light grey	1.000 g / 5 kg
04439 / 02579	Freeprint® model pro sand	1.000 g / 5 kg

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	Freeprint® model T 385	1.000 g

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

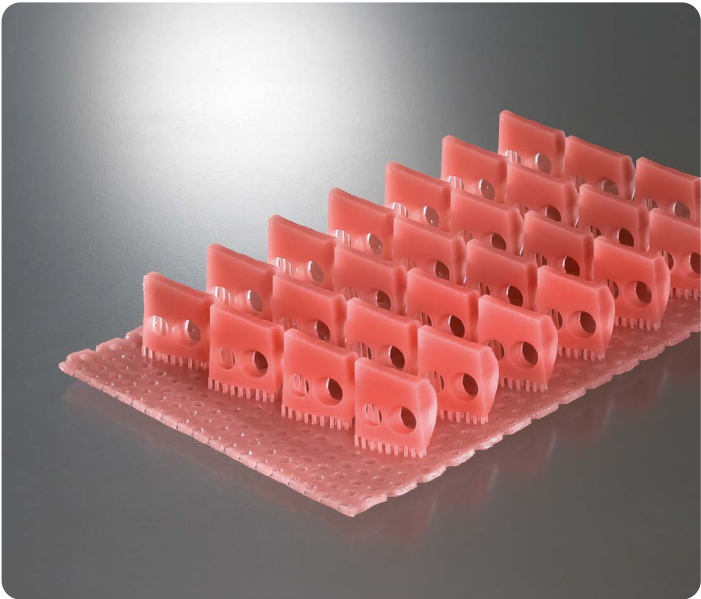
 **Wavelength:**
380 – 405 nm

 **Technical
Product**

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



The background of the image is an abstract composition of smooth, flowing, organic shapes. The primary colors are a vibrant yellow and a muted sage green, which blend into each other in a fluid, liquid-like manner. The shapes create a sense of movement and depth, with some areas appearing more saturated than others. The overall effect is a modern, artistic, and calming visual.

detax

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	FDA Listing
02505	Freeprint® tray 2.0	1.000 g	A788436

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	FDA Listing
04249	Freeprint® ibt	1.000 g	A788436

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















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dx

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	Freeprint® cast 2.0	500 g
02632	Freeprint® cast 2.0	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)



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 dx

dx validation printer matrix (385 nm)

	denture/C&B					splint/surgical guide					model				tray/lbt/cast			
	denture	denture impact	denture flex	crown	temp	tray	splintmaster full	splintmaster flex	splint 2.0	ortho	model 2.0	model pro	model T	gingiva	tray 2.0	lbt	cast 2.0	
ivoclar																		
ProjetPrint PRS				●	●		●	●	●	●				●	●		●	
MICROLAY																		
Versus	●			●	●	●	○	○	●	●	●			●	●	●	●	
Gidewell																		
Fastprint Lo				●														
MICRAFT																		
Prime/Hyper Series	●				●				●	●	●			●	●	●	●	
Ultra Series	●				●				●	●				●	●	●		
Alpha	●				●		●	●	●	●	●	●		●	●	●	●	
HexGEARS																		
A2D	●	●	●	●	●		●	●										
A2D HD	●	●	●	●	●		●	●										
A3D		●	●	●			●	●										
Chaiside		●	●	●	●		●	●										
WZP																		
Softex	●	●	●	●	●	●			●	●	●			●	●	●	●	
Qualification	● validated	● validated	○ in process															
	Date: 03/2025																	

dx validation printer matrix (405 nm)

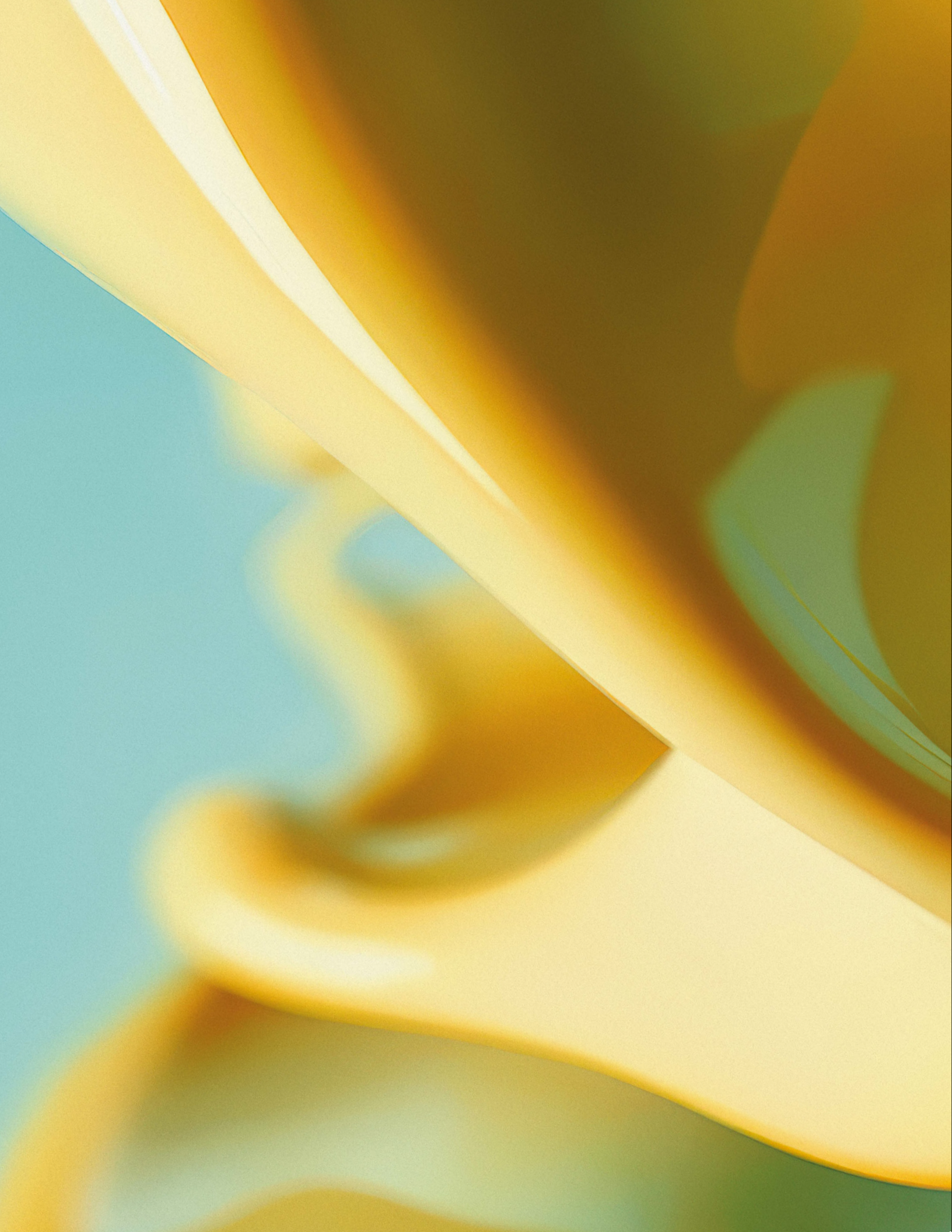
	denture/C&B				splint/surgical guide				model				tray/lbt/cast				
	denture	denture impact	denture flex	crown	temp	tray	splintmaster full	splintmaster flex	splint 2.0	ortho	model 2.0	model pro	model IT	gingiva	tray 2.0	lbt	cast 2.0
ACKURETTA																	
SOL		●		●	●												
formlabs																	
Form 4B	●	●	●	●	●										●		
RAYSHAPE																	
Edge E2		●	●	●													
MICROLAY																	
Evo Pro											●		●	●			●
Aldite																	
CPD-100	●			●	●		●	●									
phrozen																	
Sonic 4K		●			●					●		●	●	●	●		●
SHINING 3D DENTAL																	
Accu-Fab L4D		●	●	●	●					●	●	●	●	●			●
Accufab CEL		●	●	●	●					●	●	●	●	●			●
Accu-Fab D16											●	●	●	●			●
Qualification	● validated	● in process															
	Date: 03/2025																

dx validation curing matrix

	denture/C&B				splint/surgical guide				model				tray/lbt/cast				
	denture	denture impact	denture flex	crown	temp	tryin	splintmaster full	splintmaster flex	splint 2.0	ortho	model 2.0	model pro	model IT	gingiva	tray 2.0	lbt	cast 2.0
MNK-Optik																	
Opflash G71N2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NK Flash 250/500	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
NK Flash 150	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ASIGA																	
Asiga Cure	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●
rapidshope																	
RS Cure	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●
RS Cure XL	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●
straumann																	
P Cure	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●
dentalfarm																	
Photopol	●					●			●		●	●	●	●	●	●	●
Gildewell																	
ILCD				●													
ITC																	
BB-Cure											●		●				●
Qualification	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated	● validated
	Date: 03/2025																

dx validation curing matrix

	denture/C&B				splint/surgical guide				model				tray/lbt/cast				
	denture	denture impact	denture flex	crown	temp	tryin	splintmaster full	splintmaster flex	splint 2.0	ortho	model 2.0	model pro	model T	gingiva	tray 2.0	lbt	cast 2.0
 phrozen																	
Phrozen Cure																	
ivoclar																	
PrograPrint Cure																	
formlabs 																	
Form Cure																	
HEYGEARS																	
PCU3.0	●	●	●		●												
SHINING 3D DENTAL																	
Fac-Cure																	
PRUSA RESEARCH																	
Medical/CWOne																	
Qualification	● validated	●															
	Date: 03/2025																







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