formlabs | dental

dental.formlabs.com

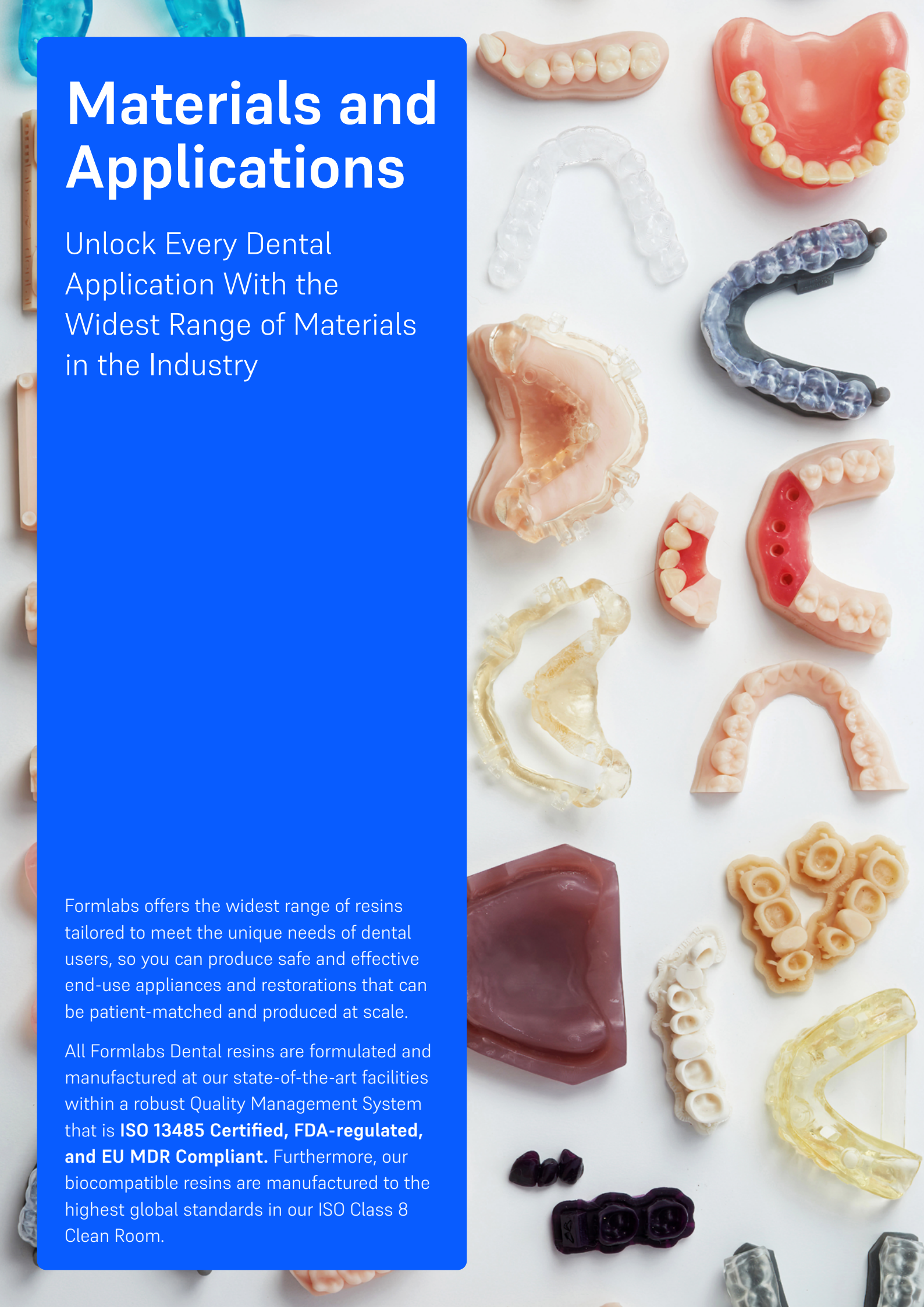
Dentistry Made Easier™

Materials and Applications

Unlock Every Dental Application With the Widest Range of Materials in the Industry

Formlabs offers the widest range of resins tailored to meet the unique needs of dental users, so you can produce safe and effective end-use appliances and restorations that can be patient-matched and produced at scale.

All Formlabs Dental resins are formulated and manufactured at our state-of-the-art facilities within a robust Quality Management System that is **ISO 13485 Certified, FDA-regulated, and EU MDR Compliant.** Furthermore, our biocompatible resins are manufactured to the highest global standards in our ISO Class 8 Clean Room.



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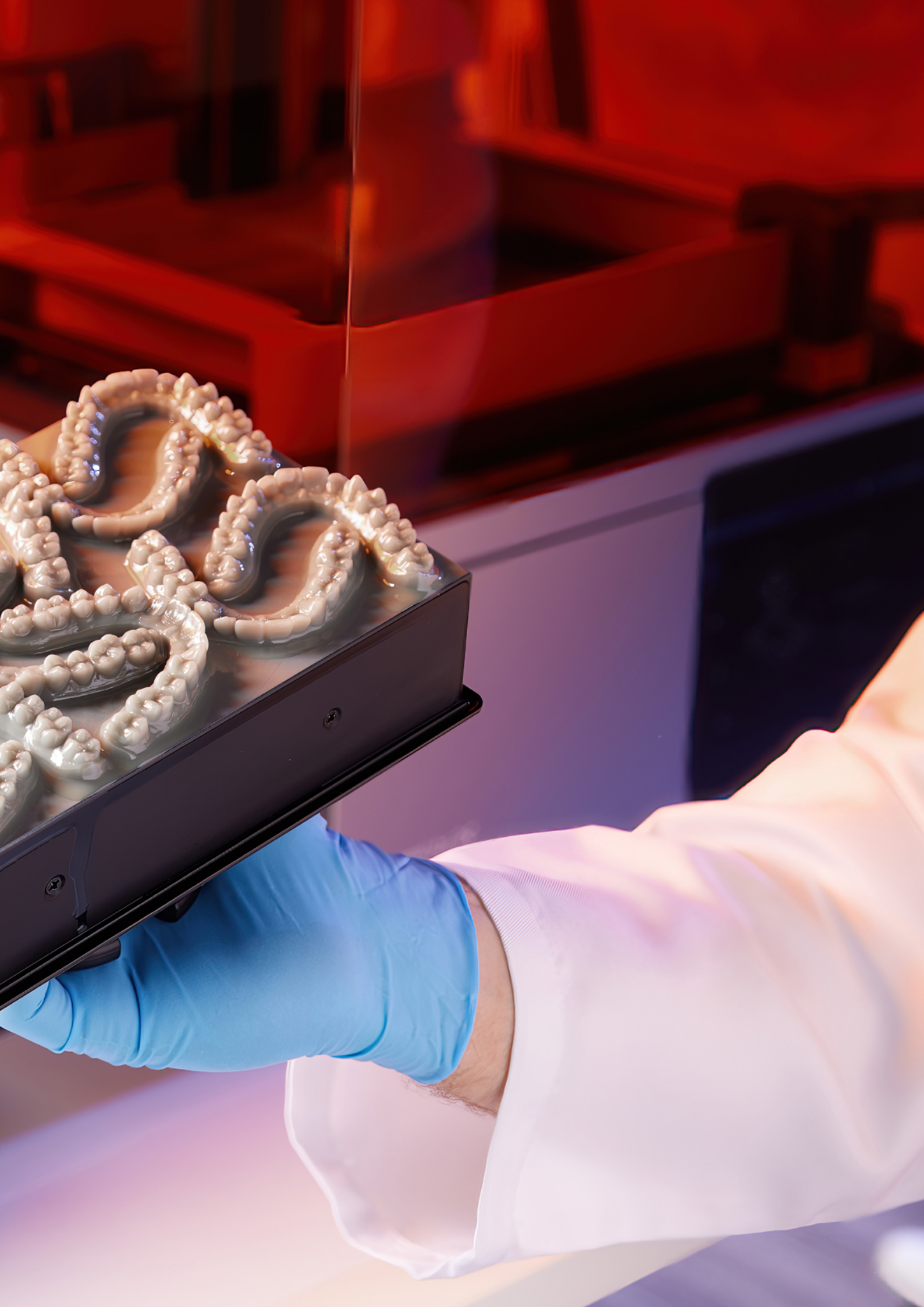
Orthodontic Applications



Models for Diagnostics and Thermoforming Appliances

FAST AND HIGHLY PRECISE MODELS IN RECORD TIME

Print 11 dental models in nine minutes, producing models for thermoforming clear aligners and retainers faster than ever. 3D print high-quality models in record time for case presentation and diagnosis. Streamline your workflow with PreForm Dental's Scan to Model feature for printable models in seconds.

			
Resin name	**Fast Model Resin**	**White Resin**	**Grey Resin**
Classification	Non-biocompatible	Non-biocompatible	Non-biocompatible
When to use	**Clear Aligners and Retainers** Fastest model resin to unlock same-visit dentistry and achieve high production throughput	**Diagnostic and Case Presentation Models** Beautiful, economical models for diagnosis and patient presentation	**Diagnostic Models and Fit Testing** Accurate dental models for easy fitment checks of splints and indirect bonding trays
Suggested layer height	160 microns	100 microns	100 microns
Workflow time For a full build platform	Print time: 9 min Wash: 5 min Form Cure: 5 min Fast Cure: 1 min	Print time: 28 min Wash: 5 min Form Cure: 5 min Fast Cure: 3 min	Print time: 31 min Wash: 5 min Form Cure: 5 min Fast Cure: 3 min
Cost per part	$/€ 1-2 per model	$/€ 1-2 per model	$/€ 1-2 per model
Models per cartridge	~100	~100	~100
Technical Data Sheet			

Indirect Bonding Trays

ACCURATE BONDING: EFFORTLESSLY PLAN AND PRINT

Reduce chairtime and optimize bracket positioning by fabricating indirect bonding trays. IBT Flex Resin offers enhanced tear strength, translucency, and flexibility so you can give your patients a vastly improved experience.

	IBT Flex Resin	Fast Model Resin
Resin name		
Classification	Class I Biocompatible One-time use	Non-biocompatible
When to use	**Indirect Bonding Trays** Print high-quality indirect bonding trays with enhanced flexibility and tear strength	**Models for Bracket Placement and Thermoformed Appliances** Combine digital and analog procedures by printing models with brackets and thermoforming indirect bonding trays
Suggested layer height	100 microns	100 microns
Workflow time For a full build platform	Print time: 54 min Wash: 20 min Form Cure: 30 min at 70 °C Fast Cure: 5 min	Print time: 25 min Wash: 5 min Form Cure: 5 min Fast Cure: 1 min
Cost per part	$/€ 2.50-4 per model	$/€ 1-2 per model
Parts per cartridge	~100	~100
Technical Data Sheet		

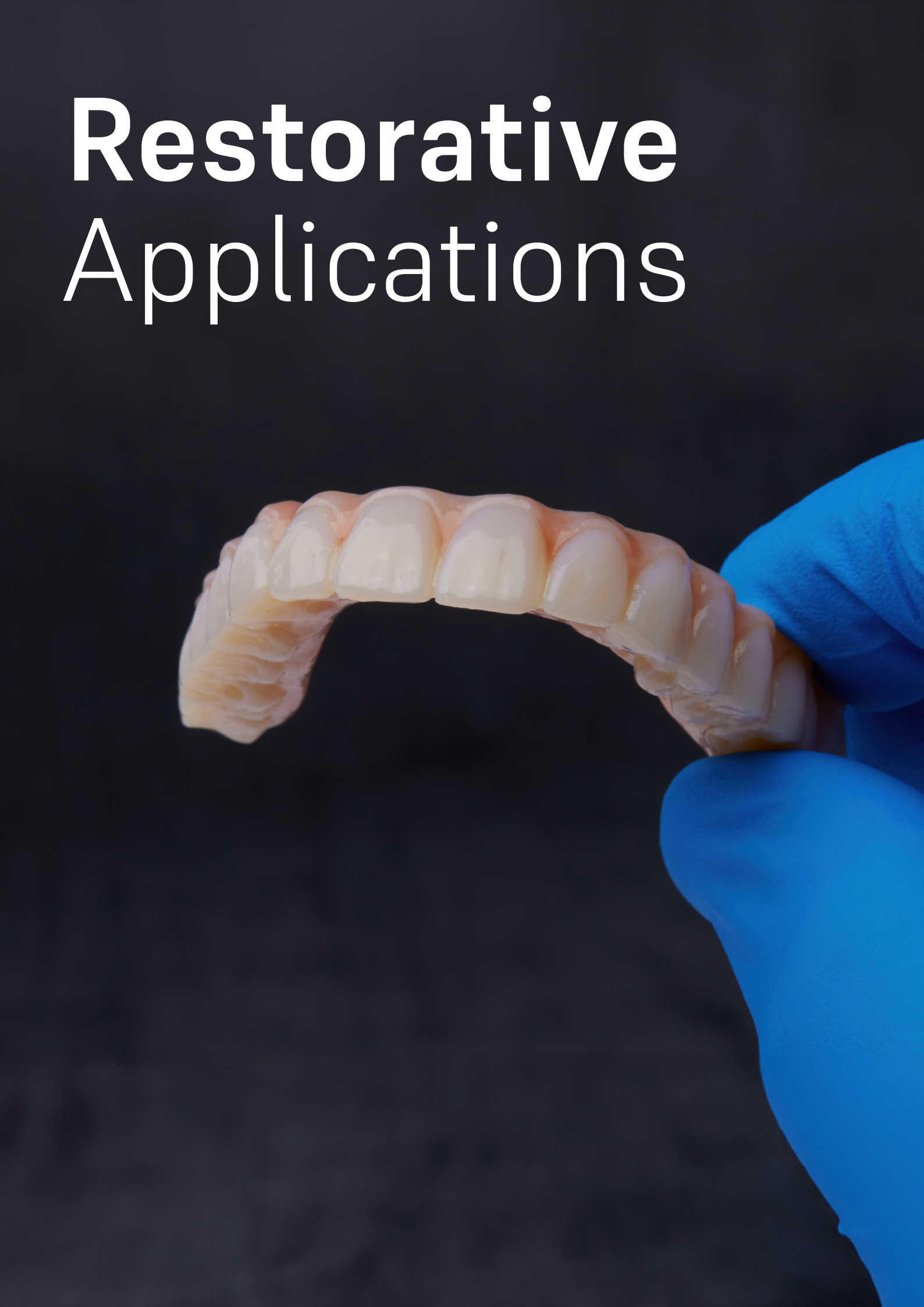
Occlusal Splints and Guards

FOR LONG-LASTING RIGID OR FLEXIBLE APPLIANCES

Directly print rigid or flexible occlusal splints and guards with high accuracy, durability, optical transparency, discoloration resistance, and comfort for improved patient adoption and long-term outcomes.

	Dental LT Clear Resin (V2)	Dental LT Comfort Resin
Resin name		
Classification	510(k) Cleared (US) / Class IIa (EU) Biocompatible Long-term use	510(k) Cleared (US) / Class IIa (EU) Biocompatible Long-term use
When to use	**Rigid Occlusal Splints and Nightguards** A stiff, highly durable, and fracture-resistant material that polishes to high optical transparency and resists discoloration over time	**Flexible Occlusal Splints and Nightguards** A flexible and durable material for comfortable long-term splints, and occlusal guards that are easily polished to high optical transparency
Suggested layer height	100 microns	100 microns
Workflow time For a full build platform	Print time: 43 min Wash: 15 min Form Cure: 60 min at 60 °C Fast Cure: 6 min	Print time: 43 min Wash: 10 min Form Cure: 20 min at 60 °C Fast Cure: 5 min
Cost per part	$/€ 3.50-4.50 per part	$/€ 4-5 per part
Parts per cartridge	~100	~100
Technical Data Sheet		

Restorative Applications



Wax-Up Models

YOUR DIGITAL DESIGN WITH A SMOOTHER SURFACE FINISH

From motivational mock-ups to testing aesthetics and function, users can accurately transfer digital smile designs with silicone indexes produced upon models 3D printed with Fast Model Resin, Precision Model Resin, or Grey Resin.

			
Resin name	**Fast Model Resin**	**Precision Model Resin**	**Grey Resin**
Classification	Non-biocompatible	Non-biocompatible	Non-biocompatible
When to use	**Fast and Accurate Models** A fast-printing resin that enables high throughput and fast turnarounds for applications like clear aligner models. Consistently print 11 arches in a nine-minute job with 95% of the printed surface area within 100 µm of the digital model	**Ultra-High Accuracy Wax-up Models** Developed for accurate restorative models, this resin can also serve for printing wax-up models when higher precision is required	**Wax-up Models With a Smooth Surface Finish** Produce accurate models for multiple purposes, including wax-up models and models for fitment check of appliances
Suggested layer height	100 microns 160 microns	50 microns	100 microns
Workflow time For a full build platform	Print time: 9 min Wash: 5 min Form Cure: 5 min (no heat) Fast Cure: 1 min	Print time: <2 h Wash: 5 min Form Cure: 5 min at 60 °C Fast Cure: 2 min	Print time: 47 min Wash: 5 min Form Cure: 5 min at 60 °C Fast Cure: 2 min
Cost per part	$/€ 1.50-2.50 per model	$/€ 2-3 per model	$/€ 1.50-2.50 per model
Technical Data Sheet			

Restorative Models

SOFT AND RIGID COMPONENTS FOR BETTER PROSTHETIC PLANNING

Create high-accuracy models with flexible gingiva masks in combination with rigid dental models for more accurate planning of implant prosthetics. Customize your models with soft tissue printed in different shades.

	Precision Model Resin	Soft Tissue Starter Pack
Resin name	Precision Model Resin	Soft Tissue Starter Pack
Classification	Non-biocompatible	Non-biocompatible
Shades	Light sand color with matte surface	Customizable dark, medium, and light pink shades
When to use	**Crisp and Accurate Models for Restorative Cases** Consistently create restorative models with >99% of printed surface area within 100 µm of the digital model	**Soft Tissue for Implant Models and Gingiva Masks** Create flexible gingiva masks for use in combination with rigid dental models. Confidently check implant prosthetics by adding removable soft tissue components to your model production
Suggested layer height	50 microns	100 microns
Workflow time For one horseshoe arch printed flat to the build platform.	Print time: 1 h 25 min Wash: 5 min Form Cure: 5 min at 35 °C Fast Cure: 30 sec	Print time: ~1 h Wash: 20 min Form Cure: 10 min at 60 °C
Cost per part	$/€ 2-4 per model	$/€ 1 per part
Technical Data Sheet		

Temporary and Permanent Restorations

STATE-OF-THE-ART CERAMIC-FILLED RESTORATIONS

Directly 3D print single-unit restorations and bridges with excellent marginal adaptation, strength, and aesthetics.

	Premium Teeth Resin	BEGO™ VarseoSmile® TriniQ® Resin
Resin name		
Classification	Class II 510(k) Cleared (US) / Class IIa (EU) Biocompatible Temporary use (up to 12 months)	510(k) Cleared (US) / Class IIa (EU) Biocompatible Permanent and Temporary use
VITA Shades	BL A2 A3 B1	A2 A3 B1
Compatibility	Compatible with standard temporary cement agents	Compatible with self-adhesive cements (e.g., Relex Unicem and 3M Espe) or composite cement with primer (e.g., Variolink Esthetic DC and Monobond Plus, Ivoclar Vivadent)
When to use	**Provisional Restorations and Bridges** Print temporary single-unit restorations (crowns, inlay, onlays, and veneers) and up to seven-unit bridges	**Permanent Bridges and Crowns With High Dimensional Stability and Strength** Print temporary and permanent single units (crowns, inlays, onlays, and veneers) and up to three-unit bridges. BEGO™ VarseoSmile® TriniQ® Resin is the first 3D printed resin indicated for permanent bridges
Suggested layer height	50 microns	50 microns
Workflow time For a single unit	Print time: 50 min Wash: 10 min Form Cure: 30 min at 80 °C Fast Cure: 2x 4 min (flip halfway)	Print time: 1 h 28 min Wash: 3 min Form Cure: 2x 20 min at 60 °C (flip halfway) Fast Cure: 2x 2 min (flip halfway)
Cost per part	$/€ ~1 per single unit	$/€ ~2 per single unit
Special hardware requirements	**Special hardware requirements**	Compatible only with Formlabs' Build Platform Flex
Technical Data Sheet		

Direct Composite Restoration Guides

PERFECTLY REPLICATED DIGITAL DESIGNS WITH FASTER WORKFLOWS

Equipped with high flexibility, tear resistance, and translucency for exceptional printing accuracy from a single restoration to a full smile. Save valuable technician time while delivering consistent, predictable outcomes.

Resin name	IBT Flex Resin
Classification	Class I (US) / Class I (EU) Biocompatible Short-term use
When to use	**Direct Composite Restoration Guides With Enhanced Accuracy and Translucency** From single units to full digital smile designs, 3D print flexible and tear-resistant translucent trays and guides that save you time and deliver consistent, predictable outcomes for both injectable and pressed composite techniques
Suggested layer height	50 microns
Workflow time For a single unit	Print time: ~2 h Wash: 20 min + 10 min soak or spray Form Cure: 30 min at 70 °C Fast Cure: 5 min
Cost per part	$/€ 3-5 per guide
Technical Data Sheet	

Custom Impression Trays

DIRECTLY PRINTED FOR A QUICKER TURNAROUND

Directly print full impression trays for implants, dentures, crowns, bridges, and other comprehensive cases for reduced labor time, higher throughput, and consistent, accurate impressions with high-quality results.

Resin name	Custom Tray Resin
Classification	Class I (US) / Class I (EU) Biocompatible Short-term use
When to use	**On-Demand Custom Trays** For cases where you opt to use traditional PVS impressions, such as implant or fully edentulous cases, you can fabricate custom impression trays to assist in definitive impression taking
Suggested layer height	100 microns
Workflow time For a single unit	Print time: 39 min Wash: 10 min Form Cure: 30 min 60 °C Fast Cure: 5 min
Cost per part	$/€ ~6 per tray
Technical Data Sheet	

Surgical Guides

FOR HIGHLY ACCURATE AND PREDICTABLE IMPLANT PLACEMENT

Developed specifically for Formlabs printers and rigorously tested by dental specialists, our Surgical Guide Resin was designed to exceed demands in part quality, accuracy, and performance for better surgical outcomes.

Resin name	Surgical Guide Resin
Classification	Class I (US) / Class I (EU) Biocompatible Short-term use
When to use	**Accurate and Autoclavable Surgical Guides** You can fabricate precise and autoclavable surgical guides to aid in implant placement procedures of single or multi-unit implants
Suggested layer height	50 microns
Workflow Time For a single unit	Print time: 1 h 11 min Wash: 20 min Form Cure: 30 min 70 ºC Fast Cure: 5 min
Cost per part	$/€ 3-5 per guide
Technical Data Sheet	

Temporary All-on-X Appliances

TEMPORARY FULL-ARCH IMPLANT-SUPPORTED RESTORATIONS

Unlock 3D printed temporary full-arch implant-supported restorations in-house with our nano-ceramic filled Premium Teeth Resin. Equipped with optimal intraoral mechanical properties, fracture resistance, and accuracy, this material's aesthetics replicate a patient's natural smile, while saving valuable workflow time in post-processing and finishing steps.

Resin name	Premium Teeth Resin
Classification	Class II 510(k) Cleared (US) / Class IIa (EU) Biocompatible Temporary use (up to 12 months)
VITA Shades	BL A2 A3 B1
When to use	**Accurate Temporary All-on-X Appliances** 3D print temporary full-arch implant-supported restorations with optimal intraoral mechanical properties, fracture resistance, and accuracy
Suggested layer height	100 microns
Workflow time For a single unit	Print time: 26 min Wash: 10 min Form Cure: 30 min at 80 °C Fast Cure: 2x 4 min (flip halfway)
Cost per part	$/€ 7-9 per part
Technical Data Sheet	

Digital Dentures

EXPANDING ACCESS TO HIGH-QUALITY DENTURES IN CUSTOM SHADES

Produce high-quality dentures in-house. Formlabs' Premium Teeth Resin and Denture Base Resin enable you to create full dentures in custom shades more easily and affordably than ever.

	Premium Teeth Resin	Denture Base Resin
Resin name		
Classification	Class II 510(k) Cleared (US) / Class IIa (EU) Biocompatible Long-term use	Class II (US) / Class IIa (EU) Biocompatible Long-term use
VITA Shades	BL A2 A3 B1	Light Pink LP Original Pink OP Red Pink RP
Compatibility	Characterization with staining and glazing kits	Characterization with staining and glazing kits Compatible with prefabricated teeth
When to use	**Strong, Lifelike Denture Teeth** Produce denture teeth for full or partial removable dentures that are to be assembled to printed bases	**Denture Bases for Long-Term Use** Produce full arch denture bases to be used with printed or prefabricated teeth. Printed teeth are assembled to the printed bases using the liquid Denture Base Resin
Suggested layer height	50 microns	50 microns
Workflow time For a single unit	Print time: ~1 h Wash: 10 min Form Cure: 2x 20 min at 60 °C (flip parts halfway) Fast Cure: 2x 2 min (flip parts halfway)	Print time: ~2 h Wash: 10-20 min Form Cure: 30 min at 80 °C (flip parts halfway) Fast Cure: 2x 3 min (flip parts halfway)
Cost per part	$/€ ~5 per part	$/€ ~6 per part
Technical Data Sheet		

Patterns for Casting and Pressing

FOR OPTIMIZING YOUR ANALOG WORKFLOW WITH DIGITAL ACCURACY

Castable Wax Resin provides casting and pressing patterns with sealed margins for accuracy, 20% wax for a clean burnout, and no curing requirements for a streamlined workflow.

Resin name	Castable Wax Resin
Classification	Non-biocompatible
When to use	**A Highly Accurate Material for Casting and Pressing Crowns, Bridges, and RPDs** Wax patterns for casting and pressing crowns, bridges, and frames for removable partial dentures
Suggested layer height	50 microns
Workflow time For one RPD frame	Print time: ~2.5 h Wash: 15 min No curing needed
Cost per removable partial denture	$/€ 4 per RPD
Technical Data Sheet	

Your Next 3D Printing Idea:

Maximize Your Time, Money, and Throughput With Formlabs Dental 3D Printing Solutions

"We can actually do same-visit printing, where we can go from a scan to a printed model and fabricate an appliance very easily within 10 minutes so we have it before a patient leaves."

Dr. Christopher Baer DMD
Baer Dental

"It's a very easy set-up and very fast! From a user standpoint, meaning someone that is not trained to 3D print, this is a really easy set-up. It's so easy to use and intuitive"

Dr. Lisa Alvetro DDS
Orthodontist & Owner
Alvetro Orthodontics

"Form 4B was a game changer for our entire production, because now we can produce parts two to five times faster than before."

Stephan Kreimer MDT
Kreimer Dentallabor

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