

MOLEGRID™

Dental Excellence

3D Printing Materials



FDA CE EU-MDR 2017/745



kexcelled
Printing excellence



Why Kexcelled?

10+
years
of Experience

**Premium
Materials**

Global
Warehousing
Capability

Team Member
170+

**CE
FDA**

Kexcelled: Your Partner in Precision Dental 3D Printing

Kexcelled is a leading manufacturer of high-quality, ultra-precise dental resins, specializing in innovative 3D printing solutions. Our Molegrid product line offers customized solutions for a wide range of dental applications, including surgical guides, denture bases, models, temporary crowns and bridges and more.

Why Choose Molegrid?

- **Unparalleled Accuracy:** Molegrid resins deliver exceptional accuracy and detail.
- **Versatile Applications:** Molegrid is suitable for a variety of dental applications.
- **Global Reach:** Kexcelled is committed to serving dental professionals worldwide.
- **CE-MDR & FDA:** Our Molegrid resins are certified by CE-MDR and FDA.

MOLEGRID™

Product Overview

Laboratory resins



MOLEGRID™ Model

Full Arch Model
Model with Dies
Diagnostic Models



MOLEGRID™ Washable Model

Full Arch Model
Models for Aligners
Orthodontics Models



MOLEGRID™ Ortho Model

Clear aligner models
Orthodontic models



MOLEGRID™ Casting Wax

Dental casting



MOLEGRID™ Study Model

Study Models
Diagnostic Models



MOLEGRID™ Gingiva Mask

Gum tissues/Gingiva masks



Biocompatible resins



MOLEGRID™ SG

Surgical guides



MOLEGRID™ Denture

Denture bases



MOLEGRID™ Temp C&B

Temporary crowns & bridges
Teeth for dentures



MOLEGRID™ Tray

Impression Trays

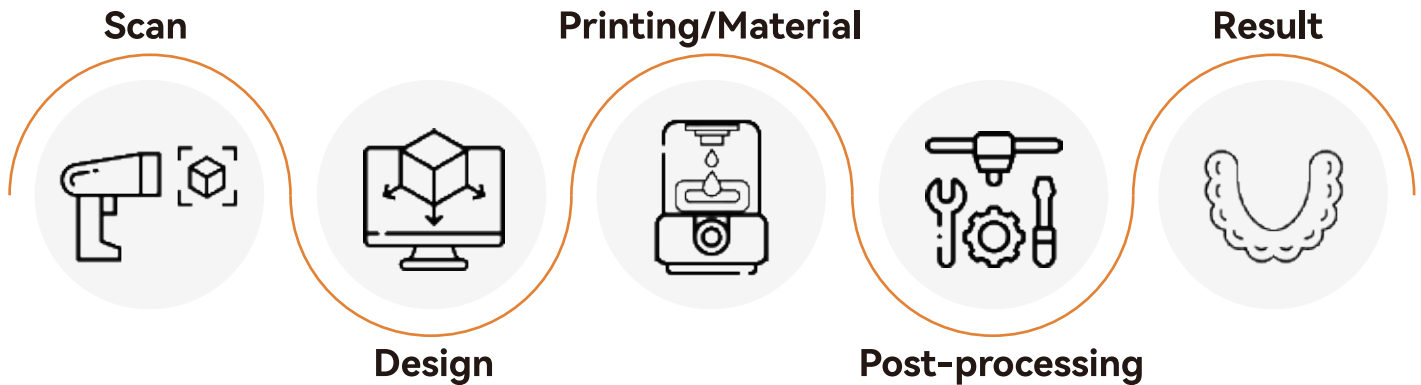


MOLEGRID™ Try-In

Denture try-ins



Digital Dentistry Workflow

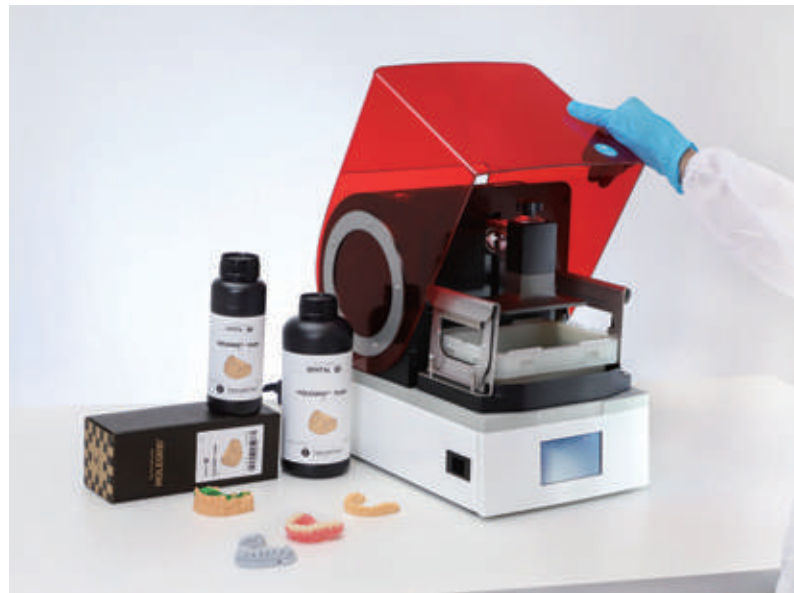


3D Printer Compatibility

Our materials are compatible with major LCD and DLP 3D printers available in the market. We have conducted comprehensive testing on our materials in various printers in our labs to guarantee optimal print quality.

To determine compatibility of our material with your printer,

Contact us at: dental@kexcelled3d.com



Certifications



MOLEGRID™ Model

Model resin enables efficient 3D printing of durable dental models, meeting various dental needs. It provides high ROI for dental practices and labs, delivering precise results crucial for patient care. This resin offers cost savings and is a valuable long-term investment.

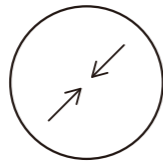
Applications

- Full Arch Model
- Model with Dies
- Diagnostic Models
- Models for Aligners
- Crown & Bridge Models
- Orthodontics Models

Advantages



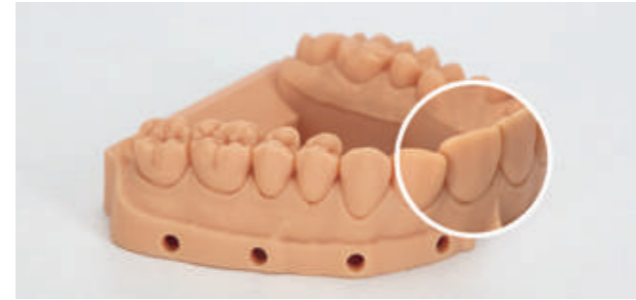
Accurate



Low shrinkage



Budget-friendly



Clear detail

Captures intricate details and fine features, ensuring precise and accurate representations of dental anatomy.



Dimensional accuracy

Provides precise measurements and alignments, ensuring that models accurately reflect the original dental structure.



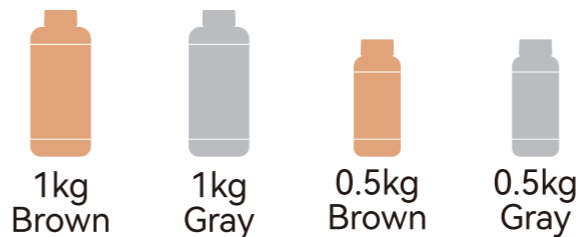
Strength and resilience

Durable and long-lasting material that withstands handling and manipulation without deformation.

ROI

32 printed models of a 1kg bottle
23 g/set

Color & Weight



Property	Procedure	Specification
Resin viscosity (cps @25°C)	ASTM D7867	300-400
Tensile strength (Mpa)	ASTM D638	42
Flexural strength (Mpa)	ASTM D790	68
Flexural modulus (Mpa)	ASTM D790	1900



MOLEGRID™ Ortho Model

This resin offers precision that is ideal for orthodontic models. Whether it's for clear aligners or other orthodontics applications, this resin enables you to quickly realize a return on your investment, thanks to the substantial cost savings compared to other available options in the market.

Applications

- Orthodontic models
- Clear aligner models



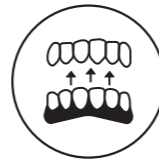
Advantages



Accurate



High-Speed



Efficient thermoforming release



High Heat Resistance

This resin can withstand the high temperatures required for thermoforming processes, making it ideal for creating clear aligners and other orthodontic appliances.



Excellent Dimensional Accuracy

OrthoModel resin ensures precise and consistent dimensional accuracy, crucial for creating models that faithfully represent the patient's oral anatomy.

Property

Procedure

Specification

Resin viscosity (cps @25°C)	ASTM D7867	300-400
Tensile strength (Mpa)	ASTM D638	44
Flexural strength (Mpa)	ASTM D790	67
Flexural modulus (Mpa)	ASTM D790	1950

ROI

42 printed models of a 1kg bottle
18 g/set

Color & Weight



1kg
Skin



1kg
Gray



0.5kg
Skin



0.5kg
Gray



NEW

MOLEGRID™ Washable Model

Washable Model resin offers high precision and strength, making it an ideal material for various applications. Unlike other resins, it can be easily cleaned with water instead of alcohol, resulting in smooth and non-sticky surfaces after curing. This makes it an exceptional choice for orthodontic use.

Applications

- Full Arch Model
- Models for Aligners
- Orthodontics Models

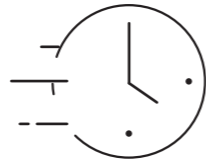
Advantages



Water washable



No IPA



Rapid curing



Eco-Friendly Cleaning

Water-soluble resins eliminate the need for harsh chemical solvents like isopropyl alcohol (IPA) for post-printing cleaning, reducing environmental impact and improving workplace safety.



Simplified Post-processing

The simple water-based cleaning process significantly reduces post-processing time and effort, streamlining the workflow for dental professionals.

ROI

32 printed models of a 1kg bottle
23 g/set

Color & Weight



1kg
Light Blue



0.5kg
Light Blue

Property	Procedure	Specification
Resin viscosity (cps @25°C)	ASTM D7867	100-350
Tensile strength (Mpa)	ASTM D638	38.7
Flexural strength (Mpa)	ASTM D790	56.4
Flexural modulus (Mpa)	ASTM D790	1683

MOLEGRID™ Study Model

White matte finish of kexcelled Study Model resin ideal for cosmetic dentistry, oral surgery, and orthodontics planning, helps understand patients' dental issues in advance. Lowest-priced dental resin, making 3D printing in dentistry more affordable.

Applications

- Study Models
- Diagnostic Models



Advantages



Accurate



Budget-friendly



Precise

Property	Procedure	Specification
Resin viscosity (cps @25°C)	ASTM D7867	300-400
Elongation at Break (%)	ASTM D638	10%
Flexural strength (Mpa)	ASTM D790	65
Flexural modulus (Mpa)	ASTM D790	1890



High Detail Resolution

Study Model resins are formulated to capture intricate details of the oral cavity, allowing for precise diagnosis and treatment planning.



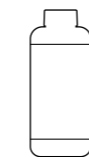
Excellent Dimensional Accuracy

These resins ensure accurate representation of the patient's oral anatomy, minimizing errors and improving treatment outcomes.

ROI

10 printed models of a 1kg bottle
75 g/set

Color & Weight



1kg
White



0.5kg
White



MOLEGRID™ Casting Wax

Highly efficient, delivering accurate moldings and ensuring reliable casting results. It offers exceptional printing details and a secure margin, making the burnout process quick and easy.

Applications

- Dental casting

Advantages



Accurate



Low odor



Smooth surface



Accurate and Detailed Models

Designed to produce highly accurate and detailed models, essential for creating precise dental restorations.

Easy Burnout Process

Formulated to burn out cleanly and completely during the casting process, minimizing ash residue and ensuring a smooth and accurate casting.

Consistent Performance

This resin offers reliable and consistent performance, making it a dependable choice for dental laboratories.

ROI

250 printed models of a 1kg bottle
3 g/set

Color & Weight



1kg
Dark Green



0.5kg
Dark Green

Property

Procedure

Specification

Resin viscosity (cps @25°C)	ASTM D7867	300-400
Impact Value (J/m)	ASTM D256	34.16
Hardness (shore A/shore D)	ASTM D2240	68D
Ashes (‰)	ASTM E 1131	0.0-0.5‰



MOLEGRID™ Gingiva Mask

Ideal for gingival masks, it is not only convenient and removable, but also exceptionally functional. It boasts a remarkable natural appearance, closely resembling real human gum.

Applications

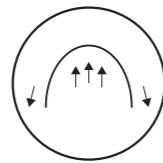
- Gum tissues/Gingiva masks



Advantages



Accurate



Flexible



Realistic Appearance



Natural Appearance

Specifically formulated to mimic the natural look and feel of human gum tissue, providing a realistic representation for diagnostic and treatment planning purposes.



Flexibility and Durability

Offers a balance of flexibility and durability, allowing for accurate representation of soft tissue while withstanding handling and processing.

ROI

1400 printed models of a 1kg bottle
0.5 g/set

Color & Weight



1kg
Pink



0.5kg
Pink

Property	Procedure	Specification
Resin viscosity (cps @25°C)	ASTM D7867	600-900
Elongation at Break (%)	ASTM D412	382%
Hardness (shore A)	ASTM D2240	30A
Tear Strength (kN/m)	ASTM D624	8.45



MOLEGRID™ SG

Ideal for fabricating transparent surgical guides, enabling doctors to place implants with utmost precision. Additionally, SG resin is biocompatible, meaning it is safe to use within the human body without causing any adverse reactions or complications.

Applications

- Surgical guides



Biocompatibility

Designed to be biocompatible, ensuring safe and reliable use in oral surgery procedures.

High Accuracy and Detail

Offer excellent accuracy and detail, allowing for precise surgical planning and execution.

Advantages



Biocompatible



Easy to Polish



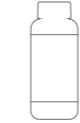
Precise

ROI

68 printed models of a 1kg bottle
11 g/set

Color & Weight


1kg
Transparent White


0.5kg
Transparent White

THF-MA	Free
MMA	Free
BPA	Free

Property

Procedure

Specification

Resin viscosity (cps @25°C)	ASTM D7867	550-700
Elongation at Break (%)	ASTM D638	10%
Flexural strength (Mpa)	ASTM D790	84
Flexural modulus (Mpa)	ASTM D790	2537



MOLEGRID™ Denture

Denture resin offers a cost-effective solution in producing durable and resilient denture bases that far surpass traditional methods in terms of longevity and wear resistance.

Applications

- Denture bases



Esthetic Appeal

Closely mimic the natural appearance of teeth and gums, providing a natural and attractive smile.



Durability and Strength

Formulated to withstand the rigors of daily use, ensuring long-lasting durability and functionality.

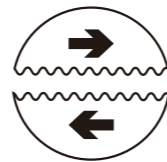
Advantages



Glossy finish after polishing



Accurate



Wear resistance

ROI

46 printed models of a 1kg bottle
15 g/set

Color & Weight



1kg
Pink



0.5kg
Pink

Property

Procedure

Specification

Property	Procedure	Specification
Resin viscosity (cps @25°C)	ASTM D7867	1200-1500
Flexural strength (Mpa)	ASTM D790	93.98
Flexural modulus (Mpa)	ASTM D790	2600
Hardness (shore A/shore D)	ASTM D2240	88D

THF-MA Free

MMA Free

BPA Free

MOLEGRID™ Temp C&B

Ideal for creating temporary restorations, single crowns, inlays, onlays, denture teeth, and veneers. This material offers easy finishing and polishing, making it a versatile choice for various dental applications.

Applications

- Temporary crowns & bridges
- Teeth for dentures



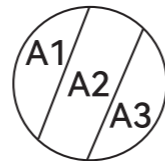
Advantages



Durable



Ultra fine prints



Available in A1 & A2 & A3

Property	Procedure	Specification
Resin viscosity (cps @25°C)	ASTM D7867	2200-3000
Flexural strength (Mpa)	ASTM D790	93.98
Flexural modulus (Mpa)	ASTM D790	2600
Hardness (shore A/shore D)	ASTM D2240	88D



Aesthetically pleasing

The aesthetically pleasing, translucent shades, aligned with the VITA Classical A1–D4 shade guide, can be expertly tailored for both single-crown and bridge restorations.



Temporary Restoration Strength

Provide sufficient strength and durability to function as temporary restorations, protecting teeth and maintaining oral function until a permanent restoration can be placed.

ROI

70 printed models of a 1kg bottle
10 g/set

540 printed models of a 1kg bottle
1.3 g/set

Color & Weight



THF-MA **Free**

MMA **Free**

BPA **Free**

MOLEGRID™ Try-In

Ideal for creating temporary restorations, single crowns, inlays, onlays, denture teeth, and veneers. This material offers easy finishing and polishing, making it a versatile choice for various dental applications.

Applications

- Denture try-ins



Advantages



Precise



Budget-friendly



Ultra fine prints



Accurate Visualization

Provide a highly accurate representation of the final restoration, allowing for precise evaluation of fit, form, and esthetics before finalization.



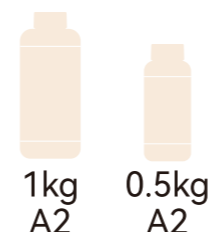
Efficient Workflow

For quick and easy processing, streamlining the workflow and reducing turnaround time for dental laboratories.

ROI

42 printed models of a 1kg bottle
18 g/set

Color & Weight



Property	Procedure	Specification
Resin viscosity (cps @25°C)	ASTM D7867	450-600
Flexural strength (Mpa)	ASTM D790	77
Flexural modulus (Mpa)	ASTM D790	2520
Hardness (shore A/shore D)	ASTM D2240	84D

THF-MA Free

MMA Free

BPA Free

MOLEGRID™ Tray

Tray is a strong resin made for creating custom impression trays quickly and accurately. This tough material is designed to handle the challenges of taking patient impressions and removing the tray from the mouth easily. It works well with all types of impression material making it a versatile and effective option for dentists.

Applications

- Impression Trays



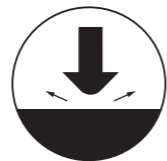
Advantages



Accurate



Precise



Strong

Property

Procedure

Specification

Resin viscosity (cps @25°C)	ASTM D7867	550-700
Elongation at Break (%)	ASTM D638	12%
Flexural strength (Mpa)	ASTM D790	79
Flexural modulus (Mpa)	ASTM D790	2437



Accurate

Produce highly accurate and detailed models, essential for creating custom trays that fit precisely.



Easy Post-processing

Easy post-processing, including cleaning and finishing, streamlining the workflow for dental professionals.

ROI

45 printed models of a 1kg bottle
17 g/set

Color & Weight



1kg

Transparent Blue



0.5kg

Transparent Blue



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MOLEGRID™
Dental 3D Printing Materials

Reach out to our sales team: dental@kexcelled3d.com