# PRODUCT CATALOG

Advanced Liquid Technology Resins for SLA, DLP & LCD 3D-printing.









## WAX CASTABLE

Liqcreate Wax Castable is a blue wax-based photopolymer with reliable processability and accuracy on LCD/MSLA, DLP and laser based 3D-printers.
3D-printed parts from this material captures intricate features and show crisp details. This wax-based material offers smooth surfaces with clean burnout for a reliable casting process.

Create custom made elegant organic geometries with positive and negative engravings according to your preferences. Liqcreate Wax Castable creates perfect casting patterns for jewelry, dental and industrial parts.







# Key Benefits

- High precision
- Wax-based
- Clean & ash free burnout
- Excellent casting of engravings

## POLYMER PROPERTIES WAX CASTABLE

Liqcreate Wax Castable is a wax-based polymer, ideal for casting applications. The following table contains information about the properties of this specific resin.

Description	ASTM Method	Metric <sup>1</sup>	Imperial <sup>1</sup>
Shore D Hardness	D2240	77	77
Flexural Strength	D790M	33 MPa	4.8 ksi
Flexural modulus	D790M	1.1 GPa	160 ksi
Water sorption	D570-98	0.28%	0.28%

<sup>1</sup>Material properties can vary with part geometry, print orientation, print settings and postcuring settings.



#### PREMIUM MODEL

Liqcreate Premium Model is a matt, opaque skin/peach colored photopolymer. Its matt color accentuates depth and detail in your dental models, which accommodates a perfect view on undercuts in 3D-printed models.

3D-printed parts from this material have good dimensional stability and is excellent for aligner and orthodontic models. Liqcreate Premium Model is easy to use on all open source LCD and DLP 3D-printers in the range of 385 - 420nm.







# Key Benefits

- Fast printing with LCD/DLP
- Dimensional stable
- Great accuracy
- Temperature resistant for aligner production

## POLYMER PROPERTIES PREMIUM MODEL

Liqcreate Premium Model is a rigid polymer, ideal for dental and medical model applications and designed for LCD and DLP 3D-printers. The following table contains information about the properties of this specific resin.

Description	ASTM Method	30 minutes high power LED curing at 40°C Metric¹	30 minutes high power LED curing at 40°C Imperial¹
Tensile Strength	D638M	53 MPa	7.69 ksi
Tensile Modulus	D638M	1.9 GPa	276 ksi
Elongation at break	D638M	4.1%	4.1%
Flexural Strength	D790M	80 MPa	9.9 ksi
Flexural modulus	D790M	2.1 GPa	305 ksi
IZOD Impact (notched)	D256A	17 J/m	0.29 ft-lb/in
Shore D Hardness	D2240	83	83
Water sorption	D570-98	0.4%	0.4%
Linear shrinkage during printing	Internal method	0.5%	0.5%
Linear shrinkage during UV-curing	Internal method	0.5%	0.5%

<sup>&</sup>lt;sup>1</sup>Material properties can vary with part geometry, print orientation, print settings and postcuring settings. Liqcreate Dental Model Pro Beige is not tested on biocompatibility, therefore the material should not be used for applications inside the human body.



#### DENTAL MODEL PRO BEIGE

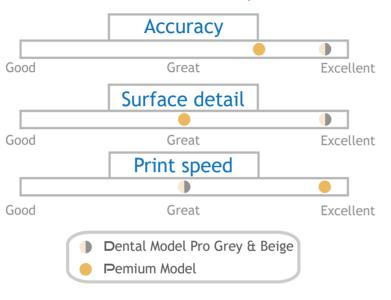
Liqcreate Dental Model Pro Beige is a matt, opaque beige colored photopolymer. Its matt surface finish accentuates depth and detail in dental models, which accommodates a perfect view on undercuts and other important markers. In addition, 3D-printed models from Dental Model Pro Beige are excellent for crown & bridge build-ups. 3D-printed parts from this material have exceptional dimensional stability and extremely low shrinkage during printing.

Liqcreate Dental Model Pro Beige is easy to use on all open source SLA, MSLA and DLP 3D-printers in the range of 385 - 420nm. This material has excellent properties like low shrinkage, low odor, high accuracy and dimensional stability, making it perfect for the production of dental models, C&B, thermoforming and aligner models.





# Dental Model Comparison



# Key Benefits

- Excellent dimensional stability
- High detail & matt surface
- Extremely low shrinkage
- Low odor

# POLYMER PROPERTIES DENTAL MODEL PRO BEIGE

Liqcreate Dental Model Pro Beige is a rigid & high accuracy polymer, ideal for dental model applications and designed for SLA, MSLA and DLP 3D-printers.

Description	ASTM Method	30 minutes high power LED curing at 40°C Metric <sup>1</sup>	30 minutes high power LED curing at 40°C Imperial <sup>1</sup>
Tensile Strength	D638M	37 MPa	5.4 ksi
Tensile Modulus	D638M	1.9 GPa	276 ksi
Elongation at break	D638M	4.8%	4.8%
Flexural Strength	D790M	64 MPa	9.3 ksi
Flexural modulus	D790M	1.7 GPa	247 ksi
Shore D Hardness	D2240	85	85
Water sorption	D570-98	0.37%	0.37%
Linear Shrinkage during printing	Internal method	0.3%	0.3%
Linear Shrinkage UV-curing	Internal method	0.4%	0.4%

<sup>1</sup>Material properties can vary with part geometry, print orientation, print settings and postcuring settings. Liqcreate Dental Model Pro Beige is not tested on biocompatibility, therefore the material should not be used for applications inside the human body.



#### DENTAL MODEL PRO GREY

Liqcreate Dental Model Pro Grey is a matt, opaque grey colored photopolymer. Its matt surface finish accentuates depth and detail in dental models, which accommodates a perfect view on undercuts and the surface is ideal for scan impressions. 3D-printed parts from this material have exceptional dimensional stability and low shrinkage during printing.

Liqcreate Dental Model Pro Grey is easy to use on all open source SLA, MSLA and DLP 3D-printers in the range of 385 - 420nm. This material has excellent properties like low shrinkage, low odor, high accuracy and dimensional stability, making it perfect for the production of dental models, C&B, thermoforming and aligner models.







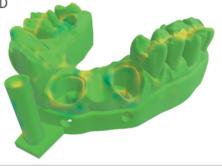
# **Accuracy Evaluation**

The accuracy evalution demonstrates that the tolerances of the tested model were 93% within 50 microns.

Accuracy of print to 3D model file

+/- 50 microns

+/- 75 microns



# Key Benefits

- Excellent dimensional stability
- High detail & matt surface
- Extremely low shrinkage
- Low odor

## POLYMER PROPERTIES DENTAL MODEL PRO GREY

Liqcreate Dental Model Pro Grey is a rigid & high accuracy polymer, ideal for dental model applications and designed for SLA, MSLA and DLP 3D-printers.

ASTM Method	30 minutes high power LED curing at 40°C Metric¹	30 minutes high power LED curing at 40°C Imperial¹
D638M	49 MPa	7.1 ksi
D638M	2.3 GPa	334 ksi
D638M	4.1%	4.1%
D790M	89 MPa	12.9 ksi
D790M	2.4 GPa	348 ksi
D2240	85	85
D570-98	0.45%	0.45%
Internal method	0.3%	0.3%
Internal method	0.4%	0.4%
	D638M D638M D638M D790M D790M D790M D790M D12240 D570-98 Internal method	LED curing at 40 °C       Metric¹       D638M     49 MPa       D638M     2.3 GPa       D638M     4.1%       D790M     89 MPa       D790M     2.4 GPa       D2240     85       D570-98     0.45%       Internal method     0.3%

'Material properties can vary with part geometry, print orientation, print settings and postcuring settings. Liqcreate Dental Model Pro Grey is not tested on biocompatibility, therefore the material should not be used for applications inside the human body.



#### GINGIVA MASK

Liqcreate Gingiva Mask is a pink colored photopolymer. It is a soft and flexible material that can be used in combination with Liqcreate Dental Model Pro Beige or Grey material.

Gingiva Mask opens the possibility to create the soft part for highly precise models, bridges and implant superstructures. Liqcreate Gingiva Mask is easy to use on open MSLA/LCD, DLP and SLA 3D-printers in the range of 385 - 420nm. With its soft and flexible properties, it is perfect for the production of gum parts for dental implant models and C&B projects.





# Key Benefits

- Soft touch
- Easy to use
- Gum look
- Good flexibility

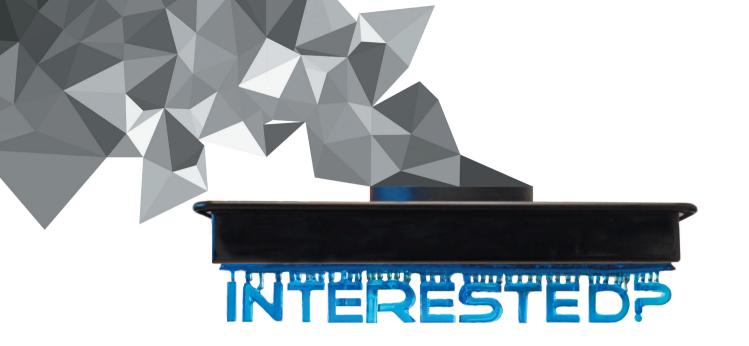
## POLYMER PROPERTIES GINGIVA MASK

Liqcreate Gingiva Mask is a flexible and soft polymer, ideal for dental applications and designed for SLA, MSLA and DLP 3D-printers.

Description	ASTM Method	Metric <sup>1</sup>	Imperial <sup>1</sup>
Tensile Strength	D638M	2.2 MPa	0.31 ksi
Tensile Modulus	D638M	11.9 MPa	1.73 ksi
Elongation at break	D638M	80-120%	80-120%
Shore A Hardness	D2240	64	64
Water sorption	D570-98	14.8%	14.8%

<sup>1</sup>Material properties can vary with part geometry, print orientation, print settings and postcuring settings. 5 minutes LED curing at 20°C in glycerol or water. Afterwards regular UV LED curing for 30 minutes. Liqcreate Gingiva Mask is not tested on biocompatibility, therefore the material should not be used for applications inside the human body.





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Questions? info@liqcreate.com

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## LIQCREATE

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