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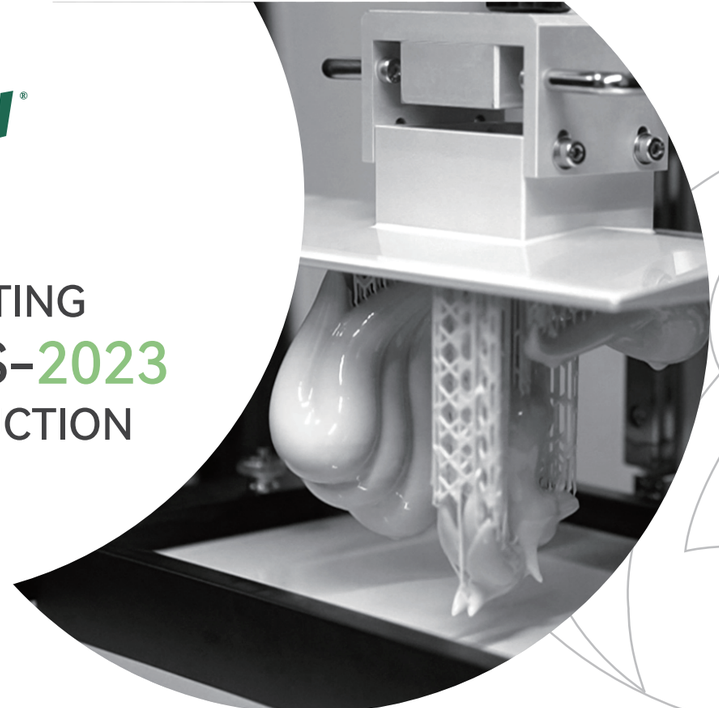
eSUN®

3D PRINTING RESINS-2023 INTRODUCTION



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MA100 Matte Resin

MA100 is a matte resin with extremely high detail reproduction, and its high molding precision allows for the faithful reproduction of figurines and models. Its matte texture enhances the expressiveness of figurine models, and its low viscosity and good flowability make it easy to print. It also possesses a certain level of toughness, suitable for various 405nm wavelength LCD/DLP devices.

Color

Features

- High Precision
- Matte Texture
- Low Viscosity

Application

- Figurines
- Education
- Decorative parts

eResin-PLA Pro

Base material comes from plant extract PLA. Excellent balance of strength and toughness. High Precision, highly detailed printed object. High compatibility, suitable for color and mono screen, large and small size printers.

Color

Features

- Excellent balance of strength and toughness
- Safe and low odor
- High Precision and Low Shrinkage
- Environmentally Friendly

Application

- Education
- Mechanical equipment
- Garage Kit
- Decorations

S200 Standard Resin

Cost effective macaron color resin. It has high printing precision. The printed surface is delicate, small details are clearly visible. It has variable macaron colors. Compatible with color and mono screen, large and small size printers.

Color

Features

- Macaron and stunning Color
- Fast Curing and Excellent Fluidity
- High Precision and Low Shrinkage

Application

- Mechanical equipment
- Automotive
- Electronic
- Pearls and jewels

PM200 PMMA Like Resin

eSUN clear 3d printer resins have excellent post-processing transparency after grinding and polishing, and spraying with UV high-transmitting oil. With high toughness and specific impact resistance, transparent resin 3d printing is more suitable for shape and assembly verification. Moreover, the clear resin has excellent internal transparency and can be used to verify beautiful transparent concept models.

Color

Features

- High transparency
- Anti-yellowing
- High toughness

Application

- Optics Illumination
- Hearing aid
- Mechanical

PW100 PLA Water Washable Resin

Water washable resin. Base material comes from plant extract PLA. The resin has high molding accuracy and excellent details. After printing, the printed object can be cleaned by water instead of alcohol. Such property make it much safer to use. The smell is low, make people feels better when printing. Low viscosity, make the resin easy to flow. Compatible with color and mono screen, large and small size printers.

Color

Features

- Water Washable with Low odor
- Balance of strength, toughness and rigidity.
- High-precision

Application

- Education
- Ornament

A200 eResin-ABS Pro

This is an upgraded ABS-like high-strength engineering resin with the physical properties of ABS material. Its high strength, impact resistance and low shrinkage make it ideal for printing protective plastic housings.

Color

Features

- Strength
- Drillable holes
- Impact resistant
- Low shrinkage

Application

- Engineering
- Manufacturing
- Garage Kit

PA100 Nylon-Like Resin

PA100 Nylon-Like Resin is a high-strength resin material developed by eSUN for engineering and manufacturing applications. It offers excellent toughness and impact resistance, capable of folding at 180 degrees without fracturing. It maintains a powder-free operation at high speeds, making it suitable for joint applications. It exhibits excellent durability and long-term stability, with low shrinkage, good assembly performance, high precision, and a quality surface finish.

Color

Features

- Excellent Toughness and Impact Resistance
- Capable of Folding at 180 Degrees without Fracturing
- Maintains a Powder-Free Operation at High Speeds
- Excellent Durability and Long-Term Stability

Application

- Fixtures
- Jigs
- Aerospace models
- Industrial parts

High Temp Resin

High Temp Resin has the characteristics of high hardness, high strength, high modulus, and high precision. The resin heat resistance is good;Resistance to long-term heating at 120° C or boiling at 100° C.The fully cured high temperature resin material has excellent mechanical properties, weather resistance and temperature resistance.

Color

Features

- Heat resistance
- High precision
- High hardness
- High strength

Application

- Mechanical
- Dental
- Automobile

Hard-Tough Resin

Strong and tough resin. Can be used for engineering purpose. Much higher impact resistance than normal resins. Excellent mechanical properties. Printed object is tough and mechanically drillable. Compatible with most printers.

Color

Features

- High toughness
- High impact resistance
- Strong and durable

Application

- Automotive
- Mechanical

eResin-eLastic

High elongation at break, good elasticity, tear resistance, tensile, bending and compression, quick rebound, a certain wear resistance.Compared with eResin-Flex, the viscosity of elastic resin is greatly reduced to ensure release and molding.

Color

Features

- Good elasticity
- High toughness
- Tear resistance
- Low hardness

Application

- Mechanical
- Automobile
- Electronic appliances
- Conveying pipeline

TC100 Temporary Crown & Bridge Resin

TC100 resin specially for temporary crown and bridge models. Mimics natural teeth texture and color. Odorless, tasteless after cleaning and post-curing. High surface hardness (>80D) with strong scratch resistance post-curing.

Color

Features

- The natural appearance of teeth
- High molding Precision
- High surface hardness (>80D)
- Good scratch resistance

Application

- Temporary crowns
- Temporary bridge
- Diagnosis of denture

GM100 Gingiva Mask Resin

Utilizing 3D printing, we can create flexible artificial gums for digital oral medicine. When combined with materials used in restoring dental models, we achieve 3D replication of deficient gingival fragments. These artificial gums closely mimic natural gingival color, appearance, and touch. The material boasts superior elasticity and tear resistance.

Color

Features

- Natural Color
- More realistic
- Good tear resistance

Application

- Gingiva model

WO100 Water Washable Ortho Model Resin

Special water washable resin material for dentistry, suitable for 3D printing high temperature resistant dental models. The model surface is smooth, with high detail reproduction and high molding accuracy.Water washable ortho model resin has high temperature resistance, the model can withstand the high pressure impact of the hot press molding instrument, and the deformation volume is small under high temperature condition; high surface hardness (>83D).

Color

Features

- Washable
- High molding accuracy
- High temperature resistant
- High surface hardness (>80D)

Application

- Orthodontic models

DM100 Dental Restoration Model Resin

Smooth surface, fine texture, high detail reproduction, accuracy; DM100 Dental Restoration Model Resin: low shrinkage (<0.5%), solid dimensional stability; High surface hardness (>80D), scratch resistance after curing; Strong with toughness—resists impact; High dimensional stability, slight deformation in 7-day preservation, ensuring extraction accuracy.

Color

Features

- High precision
- Good model texture
- High dimensional stability
- FDA certification

Application

- Dental model
- Garage kit

OM100 Ortho Model Resin

Ortho model resin is special dental resin material.The orthodontic models' surface are smooth, with high detail reproduction and high molding accuracy.With high-temperature resistance, the model printed by dental resin can withstand the high-pressure impact of the hot press molding instrument, and the deformation volume is small under high-temperature conditions.

With high surface hardness (>83D), ortho model resin is suitable for 3D printing high temperature resistant dental models(such as orthodontic models).

Color

Features

- Washable
- High temperature resistant
- High molding accuracy
- High surface hardness (>80D)

Application

- Orthodontic models

SG100 Surgical Guide Resin

Dental resin material, suitable for printing implant guide plate. The model has smooth surface and clear, high detail and precision.Surgical guide resin has good strength and toughness, with impact resistant; High temperature sterilization, wet disinfection.

Color

Features

- Clear and transparent surface
- Good strength and toughness
- High molding precision
- High temperature sterilization, wet disinfection

Application

- Cutting gum guide
- Grind bone plate
- Implantation guide plate
- Functional retainer

CT100 Custom Tray Resin

For personalized function tray customization. The model has a smooth surface, high detail reduction, and high-precision molding; good strength and toughness, with a certain impact resistance; suitable for all custom impression materials.

Color

Features

- High-precision molding
- Good strength and toughness

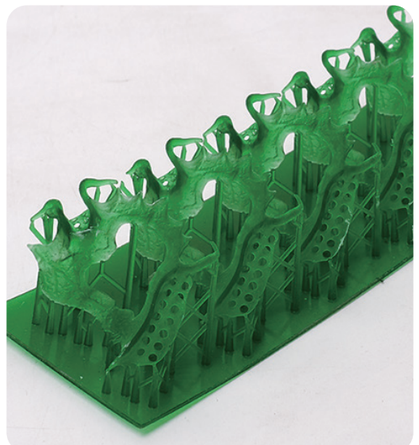
Application

- Personalized function tray
- Function tray
- Resin base plate

DC100 Dental Cast Resin

Dental resin for 3D printing crown wax-ups, bridge wax-ups and stent wax-ups. For casting blank production in precision casting technology. No residue after burning in mass casting; The model has a smooth surface, high detail reduction, and high-precision molding.The casting resin meet the needs of metal casting processes for movable stents, post cores, and inner crowns, as well as all-ceramic crowns , veneer, inlay and other casting process needs.

Color

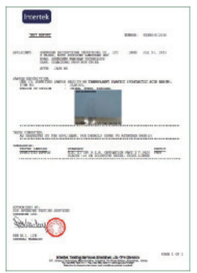


Features

- No combustion residues
- High-precision molding
- Fine casting

Application

- Crown wax-up
- Bridge wax-up
- Stent wax-up
- Partial dentures


FDA CERTIFICATION


DIN CERTIFICATION


SGS CERTIFICATION


IOS9001 CERTIFICATION


UL94-V0 CERTIFICATION


ROHS CERTIFICATION


EN71-3 CERTIFICATION


Reach CERTIFICATION


FCC CERTIFICATION


EMC CERTIFICATION

Certification of eSUN

3D PRINTING PHOTOPOLYMER RESINS PROPERTIES TABLE

(Specification of Resins: 500ml / 1000ml)

3D Printing Photopolymer Resins	eResin-PLA	eResin-PLA Pro	Standard Resin	Water Washable Resin	eResin-WS Pro	Hard-Tough Resin	Precision Model Resin	eResin-WSPR
Viscosity(mPa·s)	100-270	200-300	170-200	110-180	90-150	200-300	170-270	140-160
Density(g/cm^3)	1.07-1.10	1.09-1.10	1.08-1.13	1.10-1.14	1.11-1.13	1.08-1.12	1.13-1.16	1.11-1.12
Tensile Strength(MPa)	24-55	37-48	46-67	19-46	28-52	30-60	36-62	25-35
Elongation at Break(%)	24-37	25-28	28-36	17-30	23-29	35-52	25-40	20-35
Flexural Strength(MPa)	25-61	36-49	46-72	15-50	34-47	30-75	39-63	30-42
IZOD Impact Strength(J/m)	27-40	32-36	14-42	37-97	33-39	40-110	30-40	35-40
Surface Hardness(Shore D)	75-82	78-80	78-82	74-82	77-83	75-81	81-86	80
Strength（0-10）	6	6	8	6	6	8	6	6
Toughness（0-10）	7	7	7	7	7	9	7	7
Print Thin Walls（0-10）	8	8	9	8	8	8	7	8
Dimensional Accuracy（0-10）	7	9	7	8	8	7	9	9
Print Speed（0-10）	8	6	8	8	2	8	7	2

3D Printing Photopolymer Resins	Castable Resin for Dental	Castable Resin for Jewelry	Dental Model Resin	eResin-Flex	eResin-Elastic	eResin-PMMA LIKE	High Temp Resin (100°C)
Viscosity(mPa·s)	100-150	100-150	150-300	600-1400	500-900	300	180-220
Density(g/cm3)	1.05-1.12	1.05-1.12	1.05-1.25	1.02-1.05	1.08-1.10	1.05-1.15	1.09-1.10
Tensile Strength(MPa)	42-62	42-62	42-62	4-10	4-5	58	70-85
Elongation at Break(%)	11-20	11-20	10-20	100-350	250-350	10	35-40
Flexural Strength(MPa)	49-58	49-58	59-70	/	/	30	95-105
IZOD Impact Strength(J/m)	44-49	44-49	44-49	/	/	15	/
Surface Hardness(Shore D)	80	60	80	60-90A	70A	70	82-84
Strength（0-10）	8	8	8	2	2	6	10
Toughness（0-10）	7	7	7	10	10	6	8
Print Thin Walls（0-10）	9	9	8	4	4	8	8
Dimensional Accuracy（0-10）	8	8	8	6	6	8	7
Print Speed（0-10）	4	4	8	4	2	4	8