Adding Value to the Treatment

DIOnavi.
3D Printing Materials

DIO IMPLANT

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Core materials to lead
the Global Dental 3D Printing technology

DIO Implant developed an innovative dental 3D printing material 'DIOnavi. 3D Printing Materials to increase efficiency in the clinic and increase the convenience of the users with the unrivaled technology.

DIOnavi. 3D Printing Material' is the latest photopolymer bio-compatible dental 3D printing material that is suited for digital dental treatment.

After successfully developing the five 3D printing materials (C&B, SG, Cast, Model, Denture) for the first time in Korea, DIO has been leading dental 3D printing technology with high-quality materials through its unique synthesis, composition, and evaluation technologies.

High-quality output

Hybrid nanotechnology, which matches the combination and conditions of materials, has been combined to ensure high-quality output stability.

Various 3D printing material line-up

A variety of 3D printed material line-ups (C&B, SG, Cast, Model, Denture) have broadened users' choices, and high-intensity, durable prosthetic printing is possible with robust, bio-friendly resins with outstanding properties.

Natural tooth Shade

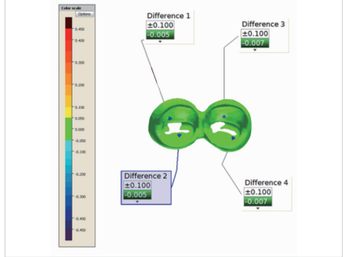
Prosthetic materials for different shades (A0, A1, A2, A3, B1) are all similar to natural teeth, so they have high aesthetic completeness.

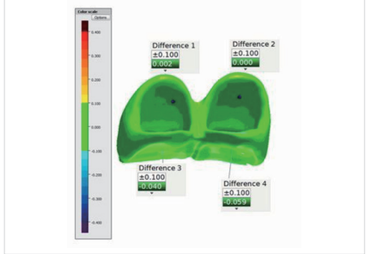
Crown and Bridge

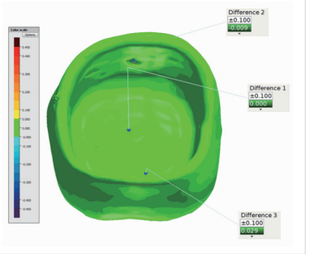
DIOnavi-P. MAX

Up to 40 pcs simultaneous printing
(for single crown)
25min

DIOnavi-P. MAX is a photopolymer resin for printing prostheses such as dental crowns or bridges.
The material is biocompatible and the safety and strength of printed crowns and bridges have been proved through strength, toxicity, and biological tests. It is a material that has been tested for toxicity and biological test on the human body as well as its strength.







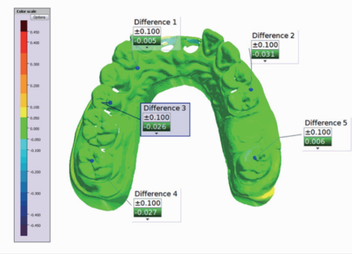
Property	Value	Method
Color	A0, A1, A2, A3, B1	Shade guide
Flexural strength	>80MPa	ISO 10477:2003
Water sorption	<40μg/mm^2	ISO 10477:2003
Water solubility	<7.5 μg/mm^2	ISO 10477:2003
Hardness shore D	>80	ISO 868:2003

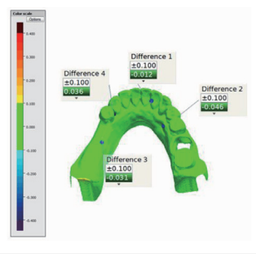
Dental Model

DIOnavi-Model

Up to 1 pcs simultaneous printing
(for Full Arch)
35min

DIOnavi-Model is a photopolymer resin for printing dental models that are used for counseling and modeling. This material has a significantly lower shrinkage rate considering its fit and margin, and it also provides the same level of visibility as the impression model.



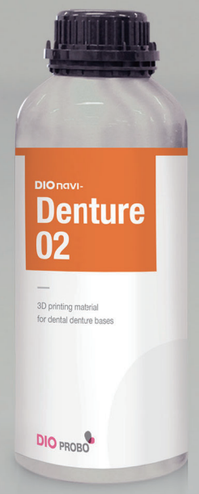


Property	Value	Method
Color	Orange	-
Flexural strength	>80MPa	ISO 178:2010
Hardness shore D	>70	ISO 868:2003

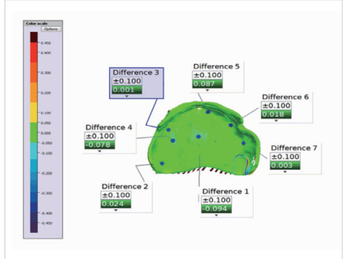
Denture

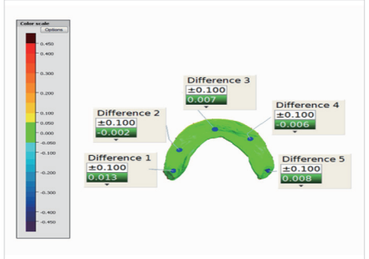
DIOnavi-Denture02

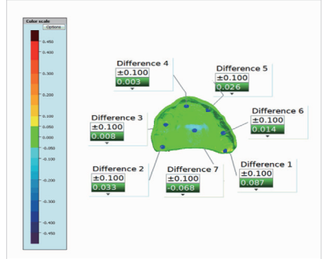
Up to 3 pcs simultaneous printing
(for vertical printing standard)
103min



DIOnavi-Denture02 is a biocompatible photopolymer resin that can be printed with a 3D printer to make denture bases. It can be used to manufacture Full Dentures or partial dentures.
It is a material that has been tested for toxicity and biological test on the human body.





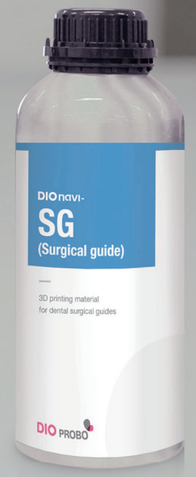


Property	Value	Method
Color	Pink (One color)	-
Flexural strength	>80MPa	ISO 20795-1:2013
Water sorption	<32μg/mm^2	ISO 20795-1:2013
Water solubility	<1.6μg/mm^2	ISO 20795-1:2013
Hardness shore D	>80	ISO 868:2003

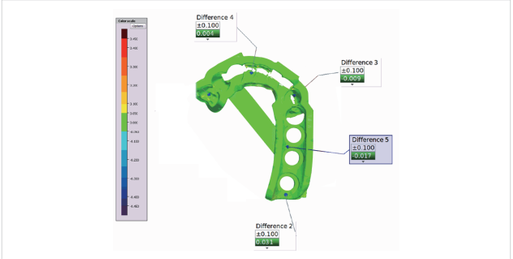
Surgical Guide

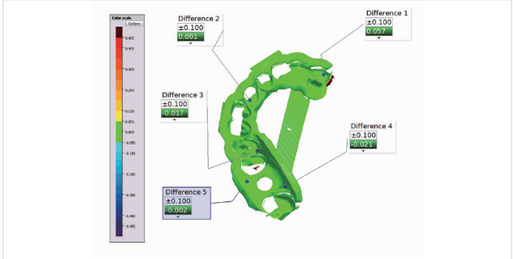
DIOnavi-SG

Up to 2 pcs simultaneous printing
(for guide)
30min



DIOnavi-SG is a biocompatible photopolymer resin developed for printing surgical guides used in patient-customized implant surgeries. The printed guide is placed on the patient's teeth before surgery, defining the exact angle, depth, and location of the implant. It is a material that has been tested for toxicity and biological test on the human body as well as its strength.





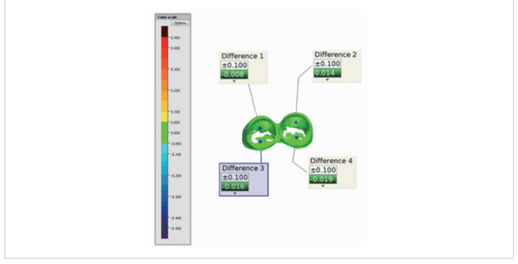
Property	Value	Method
Color	Yellowish	-
Flexural strength	>80MPa	ISO 20795:2013
Water sorption	<32μg/mm^2	ISO 20795:2013
Water solubility	<1.6 μg/mm^2	ISO 20795:2013
Hardness shore D	>70	ISO 868:2003

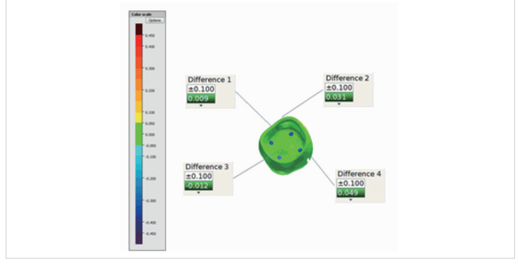
Castable Resin

DIOnavi-Cast02

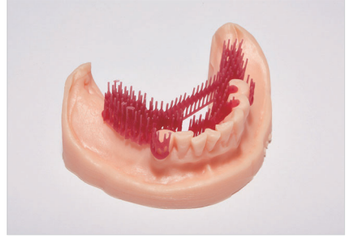
Up to 80 pcs simultaneous printing
(for Single crown) **20**min

DIOnavi-Cast is a photopolymer resin used for printing casting patterns. It is a 3D printing material that is residue-free after burning out and it can be used for all casting purposes such as partial frames, metal crowns, and orthodontics appliances.





Property	Value	Method
Color	Dark red	-
Flexural strength	>65MPa	ISO 178:2010
Hardness shore D	>70	ISO 868:2003



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