INNOVATION Z Project No.13

Controlled Medical Device – Dental glazing material (Coloring material for polymer-based crown, Bonding Material for Dental Resin)

Nu:le Coat

Characterization material for resin
Pre-treatment for PEEK

Nu:le Coat

More easily, more satisfactory.

For Laboratory & Clinic Use

Low Viscosity for Easy Application

Transparent Glossy Coat Can be overglazed

Excellent Durability

For Flexible Color Adjustment

plus One

Bonding for PEEK frame

Manufacturer

YAMAKIN CO., LTD.
1090-3 Otani, Kamibun, Kagami-cho,
Konan-shi, Kochi, 781-5451 Japan
https://www.yamakin-global.com

Head Office: 1090-3 Kamibun, Kagami-cho, Konan-shi, Kochi, 781-5451, Japan
Branch Office: Osaka, Tokyo, Nagoya, Fukuoka, Sendai, JAPAN
Factory and R&D: Kochi, JAPAN
P: +81-88-888-0290
E: contact@yamakin-gold.co.jp

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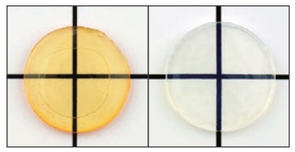
Nu:le Coat

Easy Application and Solid Coating

Pursuing Transparency

The higher surface hardness remained the same and reduced the amount of photopolymerization initiator that causes yellowness to the extreme.
Nu:le Coat Liquid Clear (hereafter Clear) is clear even immediately after light curing, so it is difficult to affect the original color tone of dental restoration even when applied overglaze. Therefore, Clear can be used easily for whitening shades.



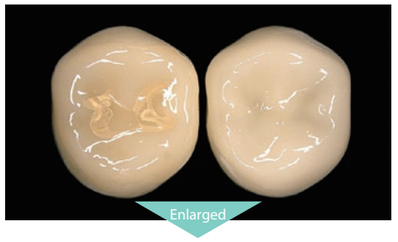
Prototype Clear

Pellet thickness (immediately after light curing) : 1.0 mm

Applied 2 layers of Nu:le Coat Clear on TWiNY A0 crown.

Small Curing Strain

The combination of flexible polyfunctional monomers and tough cross-linkable monomers reduced curing strain.
Therefore, even if the applied layer become thicker because of overglaze, it is less likely to occur cracks or floated surface.



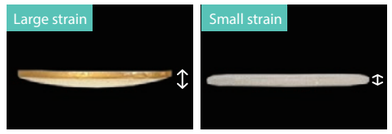
Crack Evaluation Test

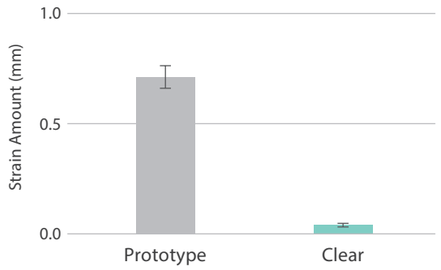
Dropped the liquid directly into the pit and fissure of crowns and evaluated by microscopy for the presence of cracks and floated surface after light curing.

Prototype Clear

Thanks to the small curing strain, the inhibition of cracking and floated surface can be expected even when a lot of liquid has been applied to the pit and fissure or the junction.

Evaluation of Curing Strain





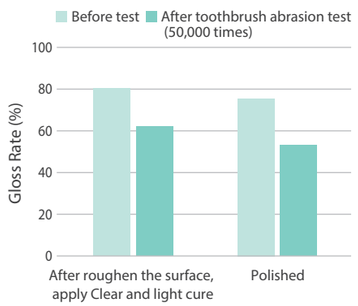
Curing deformation after light curing (strain amount) is greatly reduced comparing the thickness before light curing (0.5 mm) .

Excellent Durability

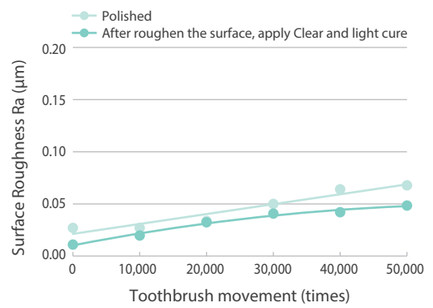
In the evaluation of toothbrush abrasion test (50000 times) *1), it is equal to or more than that of polishing finish, and excellent abrasion resistance has been confirmed.
It is reported that plaque adherence is rapidly increase when the surface roughness exceeds 0.2 µm *2). However, the surface roughness of Nu:le Coat applied surface is less than 0.1 µm even after 50,000 times of toothbrush abrasion test.

*1) ISO14569-1, the ratio of toothpaste and water is 1:2, Load weight 2.0N
Brush stroke 50,000 times is equivalent to about 7 years if it is assumed to brush teeth twice a day and brush 10 times per tooth.
*2) Bollen. M. Et al. : Dental Mater, 13 (4) 258~269, 1997.

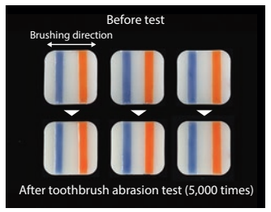
Gloss Retention



Scratching Resistance



Peel Resistance



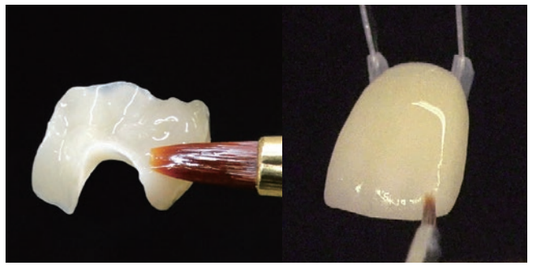
It has been confirmed that Nu:le Coat color type (Blue and Orange) which is for characterization is remained as well after 50,000 times of toothbrush abrasion test.

Low Viscosity and Easy Application

Nu:le Coat Liquid was pursued an optimal viscosity that is easy to apply. Thanks to low viscosity design, hard to remain traces of a brush and easy to apply thinly and evenly. Thin hard-coated layers of about 5 µm can be created, allowing coating and characterization without loosing the surface structure of dental restorations.
And please use Gel type when thicker layers are necessary.

Thickness of 1 layer

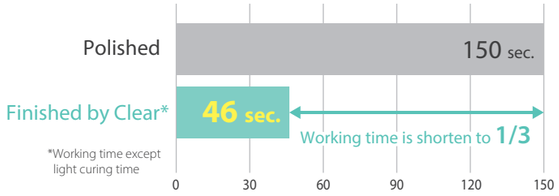
- Liquid : 5-15 µm
- Gel : 20-50 µm



Easy glazing with easy steps.
There is no loss or chipping concern during polishing.

Shorten the working time with Nu:le Coat

Finish with polishing requires craftspersonship so polishing is a very valuable task.
However, depending on the level of proficiency, the finish may vary.
On the other hand, Nu:le Coat is easy to apply and provide glaze on the surface in a short period of time regardless of proficiency. The working time becomes 1/3 to achieve glaze on the surface.



Finish time of TWiNY anterior tooth

According to a survey by YAMAKIN CO., LTD.

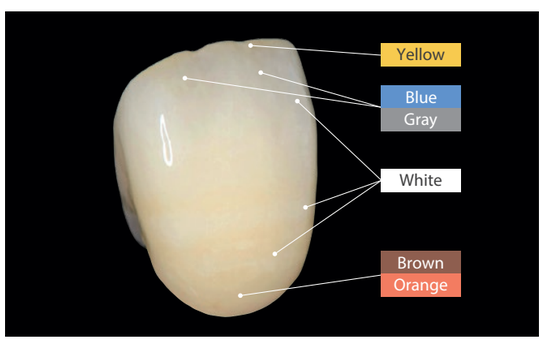
Get More Aesthetic Qualities With Color Type

Wide Range of Color Line-up for Crown Characterizing

White, Gray, Brown, Yellow, Orange and Blue lineups allow for free characterization of crowns.

White Gray Brown Yellow Orange Blue

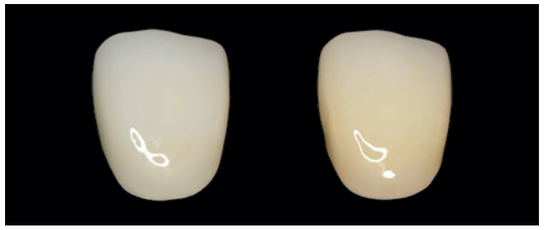
Dark Brown HV



Shade plus

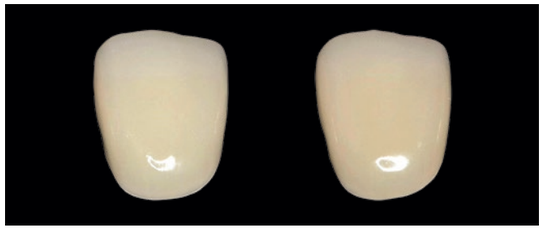
There are A plus, B plus, C plus, and D plus lineups that allow fine adjustment of the shade.

A plus B plus C plus D plus



A2 Crown Applied 1 layer of A plus.

B2 Crown Applied 1 layer of B plus.



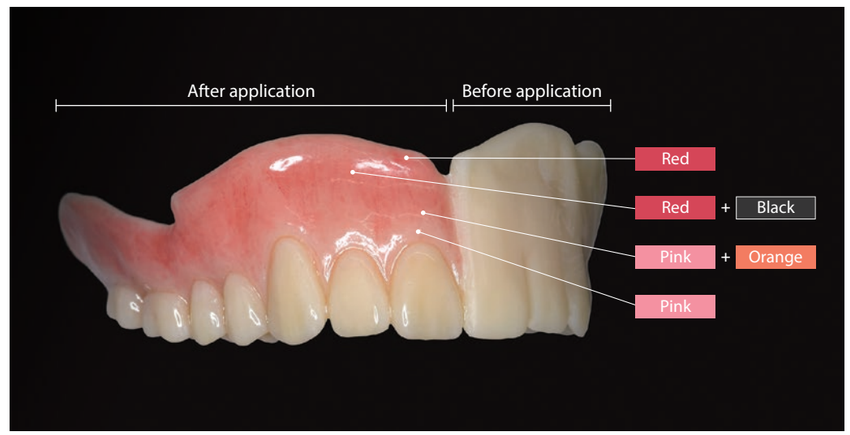
C2 Crown Applied 1 layer of C plus.

D2 Crown Applied 1 layer of D plus.

Gum Shades

There are also Gum shade line-up (Red, Pink and Black) for denture application or Gum expression.

Red Pink Black Gum

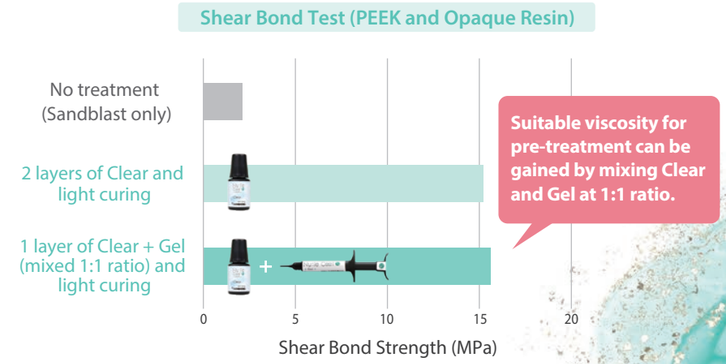


Characterized resin frame by Nu:le Coat Liquid Red, Pink, Black and Orange

Plus One Application

Pre-treatment of PEEK before applying resin materials.

Super engineering plastics PEAK-based (PEEK, PEKK, etc.) have attracted attention in recent years for their ability to mitigate impact on bone in implant cases. By the combination of Clear and Gel, composite resin (e.g., Luna-Wing) and hybrid composite resin (e.g., TWiNY) can be built up on PEEK frame.



Applied Clear and Gel (at 1:1 ratio) after sandblasting

Completion after TWiNY application

For Both Dental Laboratory and Chairside Use

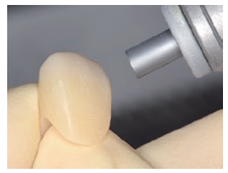
Nu:le Coat can be used not only for the finishing of resin-based dental restorations but also for regular maintenance of resin-based dental restorations that have lost their glaze.

Procedure of Applying Nu:le Coat

*This product is for resin restoration only.
This product cannot be used for tooth substances.

For Laboratory Use

After shape modification



Roughen the surface
(Alumina Sandblast etc.)

Application of Nu:le Coat
(characterizing and glazing)

Light Curing
(60 sec. by LED CURE Master)

Completion

For Chairside Use

Filling composite

After light irradiation, shape modification and roughening the surface.

Application of Nu:le Coat
(glazing)

Light irradiation

*Light irradiators should have an output peak wavelength of 400±20 nm, and also should contain the purple LED

Completion

Point Gel is recommended to use for the parts where need thickness.

1 Apply one layer of Clear as base coat and light curing.

2 

Apply Gel and light curing

For Color types, shake the bottle well before use as the colouring material may settle.
Please avoid using this product for occlusal parts where pressure is applied.

Nu:le Coat Movie

Line-up

Nu:le Coat

Nu:le Coat — Controlled Medical Device – Dental glazing material
(Coloring material for polymer-based crown, Bonding Material for Dental Resin)

Single Package

Nu:le Coat Liquid Clear (6ml)
Nu:le Coat Liquid (4ml) 15 colors
(White, Gray, Brown, Yellow, Orange, Blue, Red, Pink, Gum, Dark Brown HV, Black, A plus, B plus, C plus, D plus)

Single Package

Nu:le Coat Gel (2ml)

Light Curing Time

Usage		Equipment*1	Time
Laboratory Use	Pre-curing	LED CURE Master	30 sec.
	Final curing		60 sec.
	Pre-treatment for PEEK		30 sec.
Chairside Use*2		Dental Curing Light	Pre-curing STD 10 sec. Final curing STD 20 sec.

*1) When using a photopolymerization device other than those listed above, refer to IFU for each system and check that the effective wavelength (e.g. purple LED: peak output wavelength 400 ± 20 nm) is suitable for the material before use. For the effective wavelength, please contact the distributor of the photopolymerisation device.
*2) For intraoral use and large application areas, multiple light irradiations should be performed.

Set Package

Intro Set
- Nu:le Coat Liquid Clear (6ml) : 1 pc
- Nu:le Coat Gel (2ml) : 1 pc
- Round Brush : 1 pc
- Flat Brush : 1 pc
- Disposal Plate : 10 pcs

Regular Set
- Nu:le Coat Liquid Clear (6ml) : 1 pc
- Nu:le Coat Gel (2ml) : 1 pc
- Nu:le Coat Liquid (4ml) : White, Gray, Blue, Brown (1 pc each)
- Round Brush : 1 pc
- Flat Brush : 1 pc
- Disposal Plate : 20 pcs

Full Set
- Nu:le Coat Liquid Clear (6ml) : 1 pc
- Nu:le Coat Gel (2ml) : 1 pc
- Nu:le Coat Liquid (4ml) : White, Gray, Blue, Brown, Yellow, Orange, A Plus, B Plus, C Plus, D Plus (1 pc each)
- Round Brush : 1 pc
- Flat Brush : 1 pc
- Disposal Plate : 30 pcs

Set Contents

Type	Gel	Liquid																
Color	Clear	Clear	White	Gray	Brown	Yellow	Orange	Blue	Red	Pink	Gum	Dark Brown HV	Black	A Plus	B Plus	C Plus	D Plus
Intro Set	●	●															
Regular Set	●	●	●	●	●			●									
Full Set	●	●	●	●	●	●	●	●						●	●	●	●

Related Products

Luna-Wing
Hybrid Composite Resin for C&B

TWiNY
Indirect composite resin

LED CURE Master
LED light cure apparatus

The actual color of the product, model and package may differ from the photographs due to printing ink and shooting conditions. Packages and containers are subject to change without prior notice.