

Thermoplastic Resin for Denture Base (Resin Material for Dental Milling and Machining)

KZR-CAD Denture PC

Resin Material for Dental Milling and Machining

KZR-CAD Provisional PC

KZR-CAD デンチャーPC

KZR-CAD Denture PC

Thermoplastic Resin for Denture Base
(Resin Material for Dental Milling and Machining)



Shade	Thickness (t)	
	25mm	30mm
A2		
Pink	●	●
Clear		

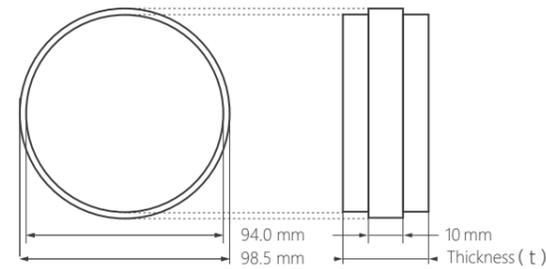
KZR-CAD プロビPC

KZR-CAD Provisional PC

Resin Material for Dental Milling and Machining



Shade	Thickness (t)
	20mm
A2	●



Digital Dentistry with Polycarbonate



Abrasion Resistance Property
Brush Abrasion Test (50,000 times)



Hard to Absorb Water



Impact Resistance Property



Using together with **Nu:le Coat**
Achieve More Aesthetic Quality

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: +81-887-55-0281
E: contact@yamakin-gold.co.jp

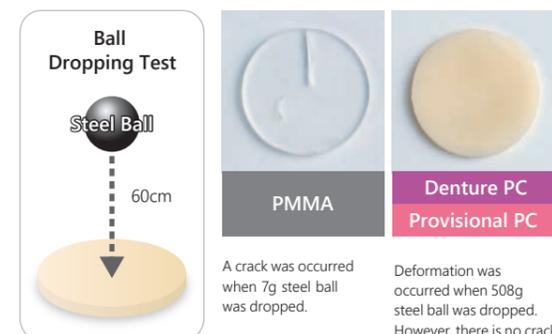
Comparison of Physical Properties of KZR-CAD Denture PC / Provisional PC and PMMA

PMMA : Materials commonly used as temporary prostheses

Polycarbonate with Excellent Impact and Abrasion Resistance

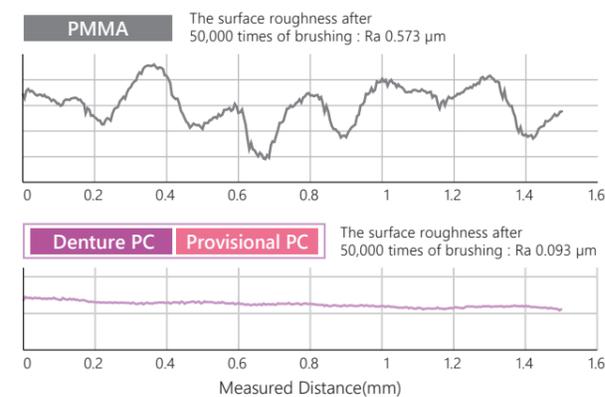
Impact Resistance Test

Steel balls, weighing 7g, 14g, 24g, 33g, 65g, 112g, 175g, 201g, 372g and 508g, were dropped from a height of 60cm on to the specimen until it is cracked. As a result of this ball dropping test, deformation was occurred a little bit when a 508g steel ball was dropped. However, there was no crack occurred for KZR-CAD Denture PC and KZR-CAD Provisional PC. Therefore, damage due to unexpected shocks can be prevented during the processes.



Brush Abrasion Test

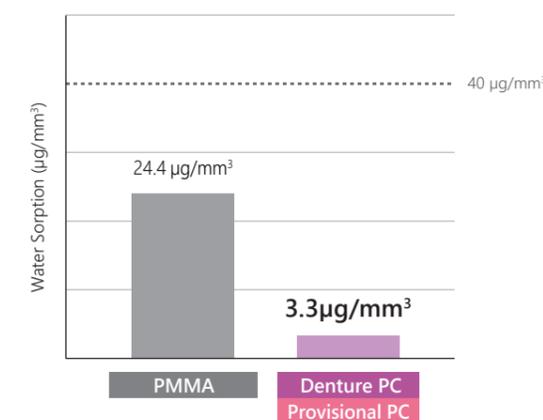
Excellent abrasion resistance of KZR-CAD Provisional PC / Denture PC was confirmed by brush abrasion test (50,000 times*) It is reported that plaque adhesion is increased rapidly when the surface roughness exceeds 0.2 μm .²⁾ However, even after 50,000 times of brushing, the surface roughness of KZR-CAD Provisional PC / Denture PC is less than 0.2 μm .



*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.

Water Sorption Test

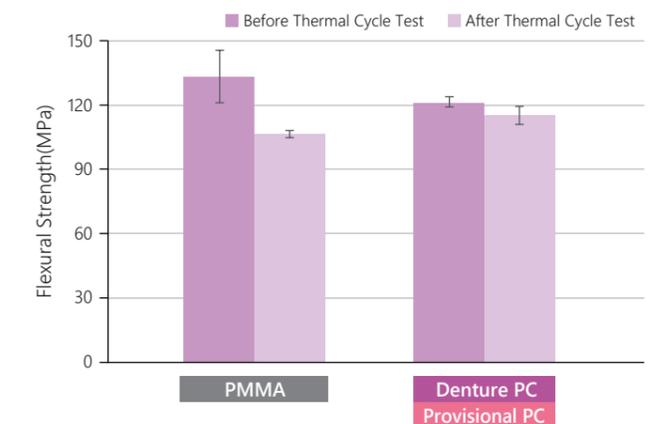
The result of water sorption test show a very low water sorption of KZR-CAD Provisional PC / Denture PC, approximately one-seventh that of PMMA, and it is expected that deterioration in the oral cavity will be hardly occurred.



ISO10477 (Water sorption amount : Not more than 40 $\mu\text{g}/\text{mm}^3$)

Flexural Strength Test

Compared to PMMA in flexural strength test, the decrease in flexural strength of KZR-CAD Provisional PC / Denture PC after thermal cycle tests is smaller. Therefore, it is expected that strength of KZR-CAD Provisional PC / Denture PC can be maintained.



Thermal cycle test conditions: 5000 time of immersions in distilled water at 4°C and 60°C for 1 minute each.

KZR-CAD デンチャーPC

Innovation through Digital Technology



More easily,
more satisfactory.

Nu:le Coat

Wide Range of Color Line-up

Provisional Denture

Based on the scan data of the denture usually used, it can be duplicated by CAD/CAM machine milling.
In addition, if the data is stored, it can be quickly re-produced in the event of loss or damage.



Gum parts can be reproduced with Nu:le Coat Color type.*
*Please keep the thickness of Nu:le Coat less than 40μm (about 3 layers).

Splint

Polycarbonate is more flexible than PMMA. Therefore, it is resistant to repeated insertion and removal, and it can be expected to maintain transparency due to its high water absorption resistance.
It can be used for splints to prevent tooth wear due to bruxism.



More transparency finish coated with Nu:le Coat Clear
Autoclave sterilization is possible after applying Nu:le Coat

Provisional restoration that the final image can be visualized.



After Milling

It is advantages of provisional restoration that checking and correcting the shape easily with CAD data before milling and milling the final with the same CAD data. Moreover, the most suitable finishing way can be chosen from polishing or application of Nu:le Coat (applying Liquid Clear, Liquid color types or shade types) depending on the patients or cases. Please take advantage of KZR-CAD Provisional PC to achieve both efficiency and beauty that is befitting the digital age.



Polished Finish

Polish KZR-CAD Provisional PC (A2)
or
Apply Nu:le Coat Liquid Clear



Characterized with Nu:le Coat

Suitable finish of provisional restorations can be achieved with polishing or application of Nu:le Coat Liquid Clear. Set with temporary a cementing material.



Polished Finish (Maxillary bilateral central incisors)

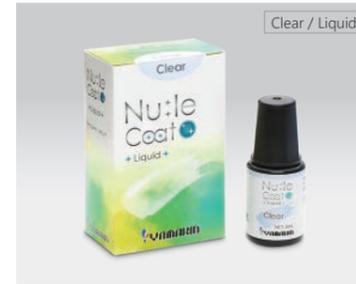
Characterizing or shade adjustment with Nu:le Coat is recommended for the cases requiring long-term attachment.



Image of inter oral use

Nu:le Coat

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



Clear / Liquid



Clear / Gel

Single Package

Nu:le Coat Liquid Clear (6ml)
Nu:le Coat Liquid (4ml) 13 colors
(White, Gray, Brown, Yellow, Orange, Blue, Red, Pink, Black
A plus, B plus, C plus, D plus)

Single Package

Nu:le Coat Gel (2ml)

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														
		Clear	White	Gray	Brown	Yellow	Orange	Blue	Red	Pink	Black	A Plus	B Plus	C Plus	D Plus	
Intro Set	•	•														
Regular Set	•	•	•	•	•			•								
Full Set	•	•	•	•	•	•	•	•	•	•		•	•	•	•	

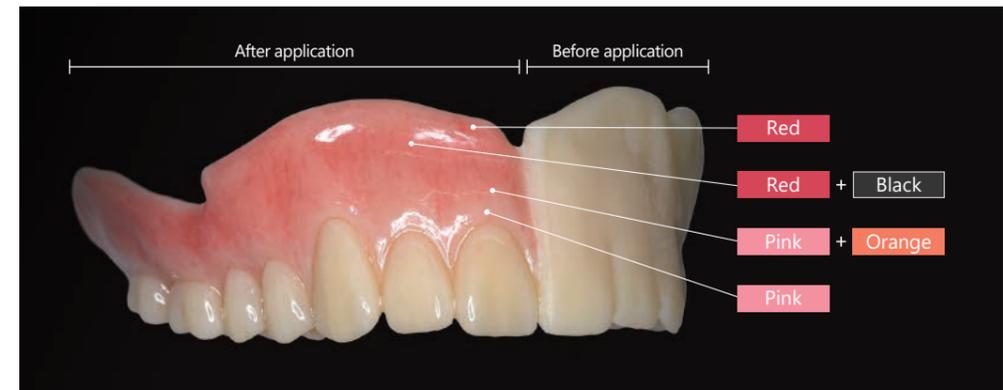
Light Curing Time

Usage	Equipment*1	Time	
		Pre-curing*3	5 sec.
Laboratory Use	LED CURE Master	Temporary curing*4	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.
*3) When applying Liquid type over Liquid type.
*4) Please refer IFU for more details for followings.
When applying Gel Type over Liquid Type.
When using for internal characterization.
When applying over PAEK-based materials.

Gum Shades

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



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