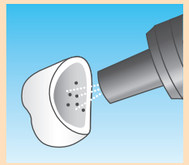
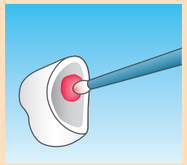
Key Points of Setting



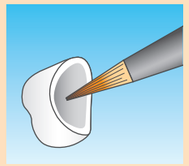
❶ Alumina Sandblasting

Blast with 50 μm alumina particles at a pressure of 0.2 - 0.3 MPa.



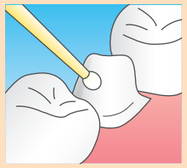
❷ Washing with Phosphoric Acid after Trial

After trial, always wash the inside of the crown with phosphoric acid, then rinse and dry to remove saliva and blood proteins.



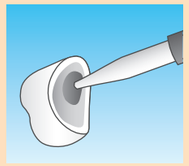
❸ Surface treatment

Apply surface treatment agent containing silane coupling for ceramics inside of the crown, and then dry,



❹ Tooth Surface Treatment

Wash tooth and perform surface treatment in accordance with the appropriate instructions for the cement to be used.



❺ Cement Application

Apply resin cement for CAD/CAM hybrid ceramics block inside the crown in accordance with the proper operational instructions.

❻ Pressing Down and Light-Curing

Press it down to fit and light-cure in accordance with normal operational instructions. Then, remove surplus cement and light-cure sufficiently as a final curing.

Lineup

Hybrid Ceramics Disc for CAD/CAM Use
KZR-CAD HR 2

Shade	Size (mm)
A2	Φ98 × t14
A3	
A3.5	

Related Products

Bonding material for dental metal, dental ceramics and composite resin

Multi Primer

Multi Primer LIQUID (7mL)
Multi Primer PASTE (2mL)
Multi Primer REPAIR LIQUID ONE (6mL)

Light-cured Indirect Composite Resin

Luna-Wing

Hybrid Composite Resin for Crowns and Bridges

TWiNY

The actual color of the product, model and package may differ from the photographs due to printing ink and shooting conditions.

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CE 0123

INTERNATIONAL20200228

YAMAKIN

Hybrid Ceramics Disc for CAD/CAM Use
KZR-CAD HR 2

Color Type : A2, A3, A3.5

Hybrid Ceramics Disc for CAD/CAM Use

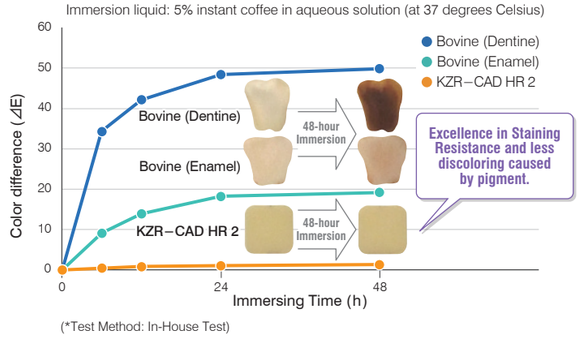
KZR-CAD HR 2

YAMAKIN has improved our unique materials technology even further and developed an even better CAD/CAM Disc.

At YAMAKIN, we have been pushing forward to evolve our in-house-developed Ceramics Cluster Filler even further, to expand its range with new functions. As a result, we have completed KZR-CAD HR Disc 2 which has outstanding strength and durability. At the same time, it also has excellent processability and polishability and fluoride sustained release.

Excellent Discoloring Resistance and Staining Resistance

Evaluation of Staining Resistance by Coffee

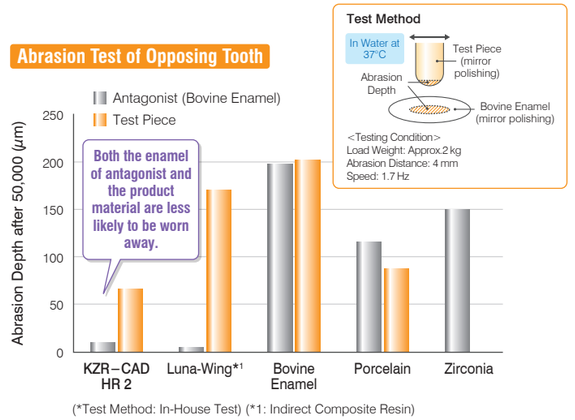


(*Test Method: In-House Test)

Since KZR-CAD HR 2 is polymerized to a high degree by heat processing, its excellent staining resistance is confirmed; it is hard to discolor in the long term and long-term endurance of aesthetic quality can be expected. This has been confirmed by studies comparing extracted teeth of bovine (Enamel and Dentine).

High Abrasion Resistance

Abrasion Test of Opposing Tooth



(*Test Method: In-House Test) (*1: Indirect Composite Resin)

KZR-CAD HR 2 is less likely to be worn away. At the same time, it is less likely to damage the opposing tooth, and the problems caused by losing occlusion balance are rendered less likely to occur by the way the product keeps a moderate level of abrasiveness.

The Evolution of Ceramics Cluster Filler

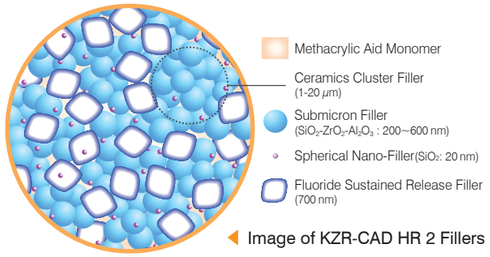
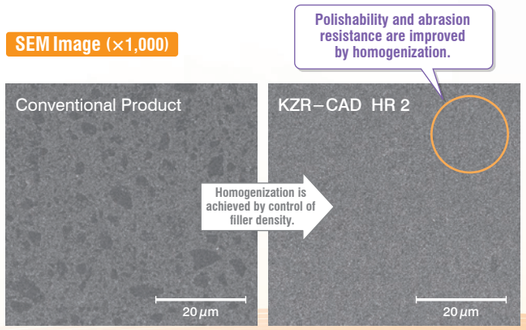


Image of KZR-CAD HR 2 Fillers

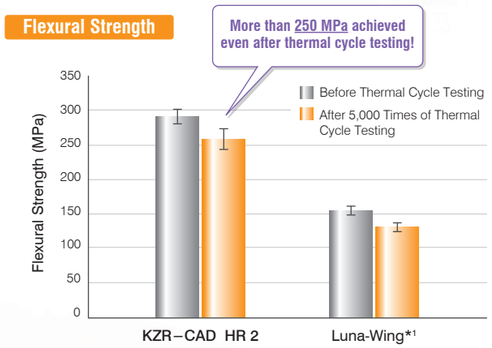
SEM Image (×1,000)



The particle density of the ceramics cluster filler used for KZR-CAD HR 2 is controlled to be 1 to 20 μm and have almost the same density as the matrix area shown in the picture on the right. As a result, the surface is so homogenized that the filler cannot be recognized even under 1,000 magnification. While it maintains outstanding strength and durability, it also succeeds in dramatically improving polishability and abrasion resistance.

Outstanding Strength and Durability

Flexural Strength



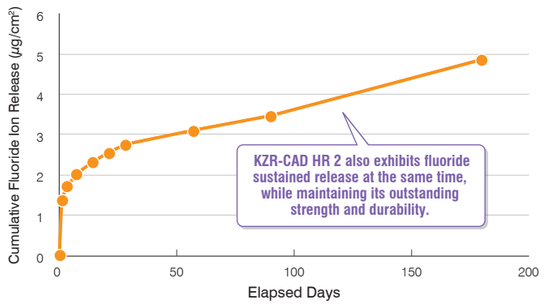
(Test method: double-axis flexural test in accordance with ISO 6872; applicable pitch circle diameter: 12 mm)
(*1: Indirect Composite Resin)

KZR-CAD HR 2 has maintained high flexural strength of over 250 MPa and it has the excellent durability even after thermal cycle testing (5,000 times at 4-60 °C, equivalent to about 1 year and a half *2)).

*2) Assuming 10 thermal changes a day.

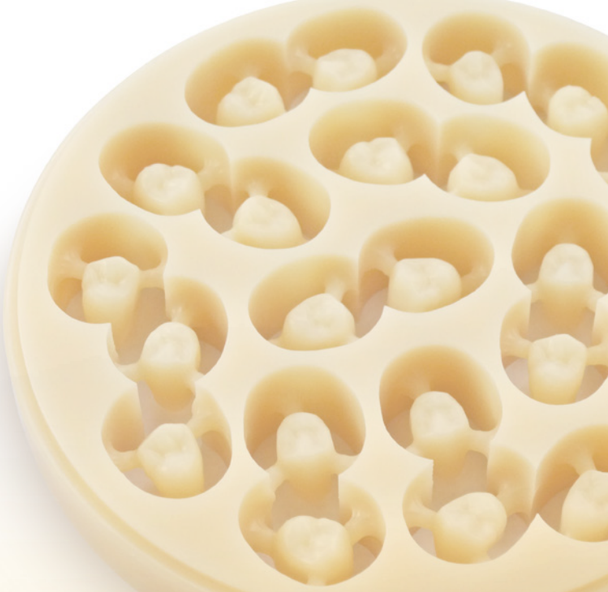
Long-term Sustained Release of Fluoride

Fluoride Sustained Release



(*Test Method: In-House Test)

KZR-CAD HR 2 continuously releases fluoride ion securely, and stably maintains its strength by optimization of the surface-treatment conditions of fluoride ion release filler.



Properties (reference value)

Flexural Strength (MPa)		Vickers Hardness (HV0.2)	X-Ray Imaging Characteristic/ Fluorescence	Fluoride Sustained Release
Three Point Flexural Test*1)	Double-Axis Flexural Test*2)			
235	290	85	Yes	Yes

The figures given are for reference purposes and are not specifications.

*1 Three-point bending test: ISO10477

*2 Two-point bending test: ISO6872 (Diameter of supporting disc: 12 mm)