

# Not for use in Canada / Ne doit pas être utilisé au Canada

(TI-010) ver.15 (05/2020)

Dental Zirconia



## HT (High Translucent) & ML (Multi Layered) / HTML (High Translucent Multi Layered)

### ENGLISH INSTRUCTIONS FOR USE

#### I. Introduction

This IFU is for KATANA Zirconia HT (High Translucent) & ML (Multi Layered) / HTML (High Translucent Multi Layered). KATANA Zirconia HT & ML / HTML are a pre-sintered zirconia disc 98.5 mm in diameter, which contains a plastic ring. This is designed for all milling systems using this generic-type disc. (Please refer to your milling system's technical instructions for correct machine operation.) KATANA Zirconia HT has 6 available thicknesses: (10mm, 14mm, 18mm, 22mm, 26mm and 30mm) and has 3 shade variations: (HT10, HT12 and HT13). KATANA Zirconia ML has 3 available thicknesses: (14mm, 18mm and 22mm) and has 6 shade variations: (A Light, A Dark, B Light, C Light, D Light and A White). KATANA Zirconia HTML has 3 available thicknesses: (14mm, 18mm and 22mm) and has 14 shade variations: (A1, A2, A3, A4, B1, B2, B3, C1, C2, C3, D2, NW). KATANA Zirconia HT is higher in translucency and KATANA Zirconia ML / HTML consists of 4 graded shade layers. KATANA Zirconia HT & ML / HTML are recommended for use in fabricating FCZ (Full Contour Zirconia) restorations or the frameworks.

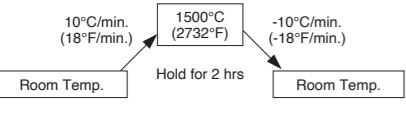
#### II. Intended Use

KATANA Zirconia is used for the fabrication of the all-ceramic restorations (frameworks, FCZ crowns, FCZ bridges, inlays, onlays and veneers).

#### III. Sintering Program

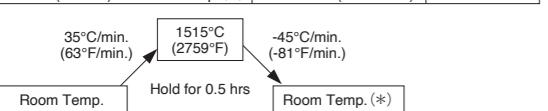
##### Sintering Program 1

Temperature	Programming Rate	Holding Time
Room Temp. – 1500°C (2732°F)	10°C/min. (18°F/min.)	—
1500°C (2732°F)	—	2 hrs
1500°C (2732°F) – Room Temp.	-10°C/min. (-18°F/min.)	—



##### Sintering Program 2

Temperature	Programming Rate	Holding Time
Room Temp. – 1515°C (2759°F)	35°C/min. (63°F/min.)	—
1515°C (2759°F)	—	0.5 hrs
1515°C (2759°F) – Room Temp. (*)	-45°C/min. (-81°F/min.)	—



#### IV. Composition

ZrO<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub> etc.

#### V. Type and Class (ISO6872:2015)

Type II/ Class 5

#### VI. Physical Properties

Coefficient of Thermal Expansion (25-500°C (77-932°F)): 9.9x10<sup>-6</sup>/K

### ESPAÑOL MODO DE EMPLEO

#### I. Introducción

Estas IFU son para KATANA Zirconia HT (High Translucent) y ML (Multi Layered) / HTML (High Translucent Multi Layered). KATANA Zirconia HT y ML / HTML son discos de zirconia presintetizados de 98.5 mm de diámetro y que contienen un anillo de plástico. Están diseñados para todos los sistemas de fresado que utilizan este disco de tipo genérico. (Por favor observe las instrucciones técnicas de su sistema de fresado para un funcionamiento correcto de la máquina.) KATANA Zirconia HT tiene 6 espesores disponibles: (10mm, 14mm, 18mm, 22mm, 26mm y 30mm) y tiene 3 tonalidades: (HT11 y HT12). KATANA Zirconia ML tiene 3 espesores disponibles: (14 mm, 18 mm y 22 mm) y tiene 6 tonalidades: (A Light, A Dark, B Light, C Light, D Light y A White). KATANA Zirconia HTML tiene 3 espesores disponibles: (14 mm, 18 mm y 22 mm) y tiene 14 tonalidades: (A1, A2, A3, A4, B1, B2, B3, C1, C2, C3, D2, D3, NW). KATANA Zirconia HT tiene una mayor translucidez y KATANA Zirconia ML / HTML consta de 4 capas de tonalidades graduadas. KATANA Zirconia HT y ML / HTML se recomiendan para fabricar restauraciones FCZ (Full Contour Zirconia) o estructuras.

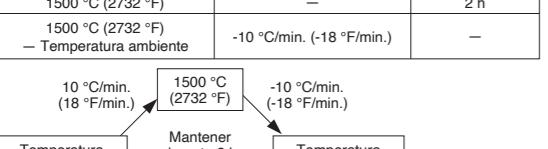
#### II. Uso previsto

KATANA Zirconia se utiliza para fabricar las restauraciones de cerámica completa (estructuras, coronas FCZ, puentes FCZ, inlays, onlays y carillas).

#### III. Programa de sinterización

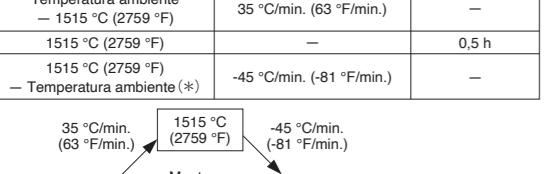
##### Programa de sinterización 1

Temperatura	Tasa de programación	Tiempo de mantenimiento
Temperatura ambiente – 1500 °C (2732 °F)	10 °C/min. (18 °F/min.)	—
1500 °C (2732 °F)	—	2 h
1500 °C (2732 °F) – Temperatura ambiente	-10 °C/min. (-18 °F/min.)	—



##### Programa de sinterización 2

Temperatura	Tasa de programación	Tiempo de mantenimiento
Temperatura ambiente – 1515 °C (2759 °F)	35 °C/min. (63 °F/min.)	—
1515 °C (2759 °F)	—	0,5 h
1515 °C (2759 °F) – Temperatura ambiente (*)	-45 °C/min. (-81 °F/min.)	—



#### IV. Composición

ZrO<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub> etc.

#### V. Tipo y clase (ISO6872:2015)

Tipo II/Clase: 5

#### VI. Propiedades físicas

Coefficiente de expansión térmica (25-500 °C (77-932 °F)): 9.9x10<sup>-6</sup>/K

#### VII. Instrucciones de uso

- Saque el disco del embalaje y verifique que el disco no presenta grietas ni otros daños.
- Coloque el disco en la fresadora; después inicie el proceso de fresado siguiendo las instrucciones técnicas del sistema de fresado.

### 8. Sintering program 2 is only recommended for frameworks (up to 3 units), FCZ crowns, FCZ bridges (up to 3 units), inlays, onlays and veneers.

- The margins should be prepared with a deep chamfer and rounded shoulders, with cutting edges and corners rounded to eliminate sharp preparation corners. The angle of the axial surface should be within the range of 5 to 15 degrees.
- When preparing teeth, avoid the following: deep shoulders, J-margins, knife edges, serrated margins, non-tapered abutments, undercuts, guide grooves, the formation of retentive holes, and sharp corners.
- Keep the following thickness of this product for fabricating prosthetics:

Location & indication	Wall thickness
Anterior crown or bridge	0.4 mm or more
Veneer	0.4 mm or more
Posterior crown or bridge	0.5 mm or more
Inlay or onlay	0.5 mm or more

- Use the following cross-sectional areas for connectors when fabricating bridges.

Location & indication	Connector cross section
Anterior	2- or 3-unit bridges more than 4-unit bridges
Posterior	2- or 3-unit bridges more than 4-unit bridges

- Keep the pontic in the bridge within 2 teeth. When the pontic of 2 teeth continues, keep the connector cross section between the pontic at 12 mm<sup>2</sup>.

Keep the canillary bridge to 1 pontic tooth and the connector cross section at 12 mm<sup>2</sup>.

- After milling, remove the restorations from the disc with a diamond bur, etc.

(4) The cutting waste or dust, which is attached to the restorations, can be removed with a gentle air stream.

- Put the restorations into the refractory sagger tray and place them in the sintering furnace.

(5) Depending on the performance of the sintering furnace used, review the sintering schedule shown above (III. Sintering Program) before sintering the restorations.

- After sintering, adjust the restorations with a diamond bur as needed.

(8) Confirm that the restorations have no cracks.

- 9-1 FCZ:

a) Glaze baking: Create a high shine surface by polishing, especially on the contact areas, then apply the glaze on all surfaces in the usual manner.

b) Hand polishing: Create a high shine surface on the entire restoration by polishing without using the glaze. In the case of using HTML, when the restoration is to be finished without the glaze, select a brighter shade than the final shade.

- 9-2 Frameworks: Build-up the dental porcelain (CERABIEN ZR or CZR PRESS LF) on the frameworks following the manufacturer's technical instructions. Check the coefficient of thermal expansion of the porcelain in the manufacturer's technical instructions to confirm compatibility.

#### VIII. Remarks on Handling

##### Contraindications:

- If the patient is hypersensitive to zirconia or any other components, this product must not be used.
- Warning:

If the patient or the dental professional demonstrates a hypersensitivity reaction, such as rash, dermatitis etc., discontinue use of the product and seek medical attention immediately.

##### Caution:

- This product should not be used when malocclusion, clenching or bruxism conditions are present.
- When milling the disc or cutting, grinding and polishing the restorations, use an approved dust mask and vacuum with air filter to protect your lungs from inhaling dust.
- When milling the disc or cutting, grinding and polishing the restorations, use safety glasses to prevent dust from getting into your eyes. If the dust gets into your eyes, immediately rinse with copious amounts of water and consult a physician.
- Do not use for any purposes except for dental restoration. This product is for dental application only.
- Do not touch the restorations heated in the furnace with your bare hands.
- Do not take the restorations out of the sintering furnace during high temperature, as the quenching causes the breaking. However, if an elevating type furnace is used during sintering program 2, the restorations may be removed from the furnace at 800°C (1472°F) or less. When removed from the furnace, the restorations must be put on a tray made of ceramic fiber (for example, Noritake Porcelain Mat) to cool slowly.
- When milling the disc or cutting, grinding and polishing the restorations, use safety glasses to prevent dust from getting into your eyes. If the dust gets into your eyes, immediately rinse with copious amounts of water and consult a physician.
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