

# Zirlux 16<sup>+</sup> Zirconia Sintering Guidelines



Sintering is a critical step to achieve best esthetics and physical properties of the zirconia. Follow the steps below to ensure Zirlux 16+ Zirconia restorations are processed correctly and that you are providing the patient with the best possible restoration.

It is essential to follow these steps and the instructions for the specific sintering furnace you are using:

- 1. Remove any dust from the milled green state restoration(s) with oil-free, dry compressed air before sintering.
- 2. Follow with a firm brush to remove all debris from the crown
  - If after sintering you notice a white spotted finish, the green state zirconia cleaning was incomplete.
- 3. Position the restoration on the sintering crucible leaving space between each unit
- 4. Program your furnace according to the instructions for use.
- 5. Run the sintering cycle.
- 6. Wait until cool-down is completed before removing the sintered restoration.
- 7. Inspect the restoration for flaws such as chips, seating, occlusion, interproximal contacts, and marginal integrity.
- 8. If necessary, make small adjustments with a water-cooled diamond bur using a high-speed handpiece.
- 9. Once all grinding is complete, steam clean the Zirlux 16+ Zirconia restoration and allow to dry.
- 10. Polish all occlusal contacts with a rubber wheel prior to stain and glaze.
- 11. Follow the IFU of the stain and glaze system of choice for application and firing parameters.





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#### Pre-Shaded

### 4 Step Sintering for Zirlux 16+

| Program Steps | Starting Temperature (°C/Min) | Final Temperature (°C/Min) | Retention Time Min. | Heating Rate (°C/Min) |
|---------------|-------------------------------|----------------------------|---------------------|-----------------------|
| 1             | Room Temperature              | 1200                       | 30                  | 5                     |
| 2             | 1200                          | 1530                       | 0                   | 2                     |
| 3             | 1530                          | 1530                       | 120                 | 0                     |
| 4             | 1530                          | 100                        | Furnace Cooling     |                       |

### 7 Step Sintering for Zirlux 16+

| Program Steps | Starting Temperature (°C/Min) | Final Temperature (°C/Min) | Time Min.       | Heating Rate (°C/Min) |
|---------------|-------------------------------|----------------------------|-----------------|-----------------------|
| 1             | Room Temperature              | 1200                       | 137.5           | 8                     |
| 2             | 1200                          | 1200                       | 30              | 0                     |
| 3             | 1200                          | 1400                       | 100             | 2                     |
| 4             | 1400                          | 1530                       | 32.5            | 4                     |
| 5             | 1530                          | 1530                       | 120             | 0                     |
| 6             | 1530                          | 800                        | 91.25           | -8                    |
| 7             | 800                           | 150                        | Natural Cooling |                       |

#### White

### 6 Step Sintering for Zirlux 16+

| Program Steps | Starting Temperature (°C/Min) | Final Temperature (°C/Min) | Time Min.       | Heating Rate (°C/Min) |
|---------------|-------------------------------|----------------------------|-----------------|-----------------------|
| 1             | 100                           | 500                        | 160             | 2.5                   |
| 2             | 500                           | 1000                       | 62.5            | 8                     |
| 3             | 1000                          | 1530                       | 132.5           | 4                     |
| 4             | 1530                          | 1530                       | 120             | 0                     |
| 5             | 1530                          | 800                        | 91.25           | -8                    |
| 6             | 800                           | 150                        | Natural Cooling |                       |

Always refer to the manufacturer's instructions for proper use and placement of the material.

