

## Coloring Argenz HT+

For best results, use recommended Argenz Shading Liquids. Argenz HT+ is compatible with all major dental zirconia coloring systems.

## Sintering Argenz HT+

Standard Cycle	Program	Rate/Minute	Temperature
1	Heating Ramp	7°C/Minute	1900°C
2	Heating Ramp	10°C/Minute	1500°C
3	Heat Soak	120 Minutes	1500°C
4	Cooling Ramp	7°C/Minute	1000°C
5	Cooling Ramp	10°C/Minute	200°C

## Large Bridge Cycle\*

Stage	Program	Rate/Minute	Temperature
1	Heating Ramp	4°C/Minute	1500°C
2	Heat Soak	120 Minutes	1500°C
3	Cooling Ramp	4°C/Minute	200°C

**NOTE:** Sintering temperatures are recommendations. If necessary, carry out a trial sintering cycle and adapt the sintering times and/or temperatures as needed.

After controlled cooling segment, the framework can cool naturally.

\*Large Bridge Cycles should be used on large bridge systems at 4 degree/minute.

## Argenz HT+ Material Properties

**Strength**  
Flexural Bending Strength - Argenz HT+ >1250 MPa mean value

### Density

>6.08g/cm<sup>3</sup>

### Composition

ZrO<sub>2</sub>+HfO<sub>2</sub>+Y<sub>2</sub>O<sub>3</sub> >99 wt%  
Y<sub>2</sub>O<sub>3</sub> 6.1-8.2 wt%  
HfO<sub>2</sub> <5 wt%  
Al<sub>2</sub>O<sub>3</sub> <0.2 wt%

Type/Class Type III/Class 5

ISO 6872:2015

### Thermal Expansion Coefficient

25-500°C = 10.3µm/m-°C

## Argenz HT+ (high translucent plus)

dental zirconia can be used for the production of full-contour and substructure restorations. The following instructions provide general guidelines for handling, designing, milling, sintering and adjusting of Argenz material and should be followed very carefully to avoid any loss of aesthetics, fit, durability or overall quality.

## Indications for Use

Argenz HT+ (high translucent plus) zirconia can be used for the production of full contour and substructures restorations up to a full arch

### For Use in Canada

Health Canada restricts zirconia bridges to six units with a maximum of two pontics next to one another.

### Argenz Technical Support

For further questions or technical support, please contact Argenz's Technical Support staff at (800) 255-5095

## HAZARDS IDENTIFICATION - EMERGENCY OVERVIEW

### Specific Physical Form

Solid block or slab  
**Odor, Color, Grade**  
White colorless block

### General Physical Form

Solid

**Immediate Health, Physical, and Environmental Hazards**  
No immediate health, physical, or environmental hazards are anticipated

### Eye Contact

Mechanical eye irritation  
Signs/symptoms may include pain, redness, tearing, and corneal abrasion.

**Ingestion**  
No health effects are expected

## CE2797

R Only

The Argenz Corporation

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CE 2797 R Only  
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## Designing Argenz HT+

Noncompliance with these guidelines could result in an unfit or failed restoration.

### DESIGN CRITERIA

**DRILL COMPENSATION** Drill compensation should be ascribed for all substructures milled from a solid structure.

### Cement Gap

The distance above the coping necks to the die at the margin area. Use the setting to control margin fit.

### Extra Cement Gap

The distance between the coping neck and the die. Use the setting to control internal fit.

### Distance to Margin Line

The distance from the margin line to the start of the internal wall of the coping.

### Smooth Distance

The distance from the margin line to the margin engagement joint. Should be set at 0.2mm.

### Ball Radius

The ball radius should be the size of the smallest end not used to mill the pattern.

### DRILL COMPENSATION

The distance from the margin line to the area affected by drill compensation. Should be a minimum of 0.5mm.

### Margin Line Offset

The effective thickness of the margin line and should not be less than 0.2mm. Thinner margin lines will result in a higher failure rate.

### Offset Angle at Extension Offset

The extension offset should not be less than 60°.

### Wall Thickness

A minimal wall thickness of 0.5mm will ensure a consistently quality product. Thinning this value could result in fractures or voids in the framework.

### Bridge Connection

Recommendation: Allow reduction. Overlapped. Recommendation: Reduce. Reduce. Overlapped.

## Argenz HT+ Zirconia

## Instructions for Use



(800) 255-5524

argenz.com

## Milling Argenz HT+

Pre-sintered ("green") zirconia material has an inherent shrinkage rate associated with each production lot. This shrinkage rate, usually formatted as 1.XXXX, can be found on the side of the actual disc. The number MUST be input into the milling preparation software to ensure the accuracy of the eventual restoration.

When milling Argenz, always follow these general guidelines:

- Reference the mill's user manual to prevent overlightening of discs in fixture.
- Only use sharp end mills with diamond coating.
- Do not use any restoration that has chips and/or cracks. Remove the units from the disc using a handpiece with a diamond-coated burr.
- Smooth the support areas with a medium-grit rubber polishing wheel.
- Remove any residual zirconia dust with an air brush.
- If a wet mill is used, make sure all the zirconia is completely dry before shading/sintering. Air dry for at least 30 minutes prior to sintering. Damp zirconia will crack if placed in the sintering oven.