

All Ceramic Materials for All-Ceramic Restorations



Lithium Disilicate Press on Zirconia

Amber[®] LiSi-POZ

User's Manual

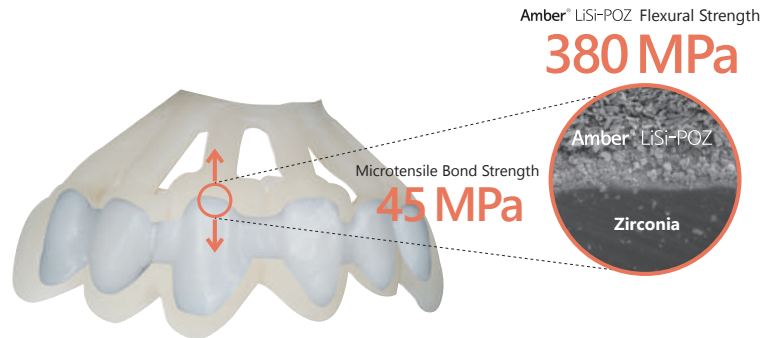
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Amber[®] LiSi-POZ User's Manual

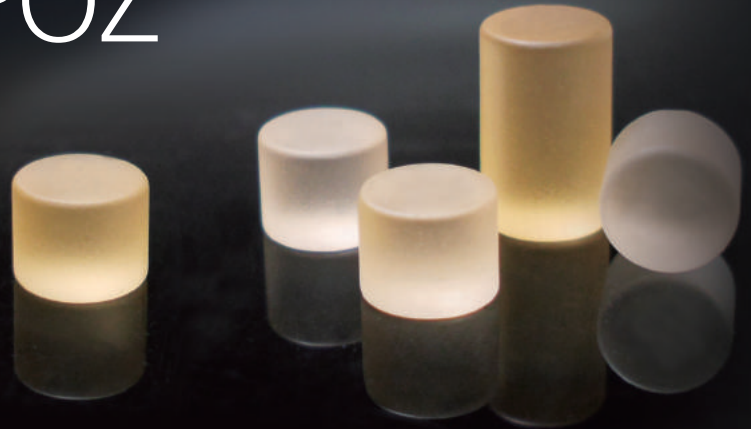
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Lithium Disilicate Press on Zirconia

Amber[®] LiSi-POZ



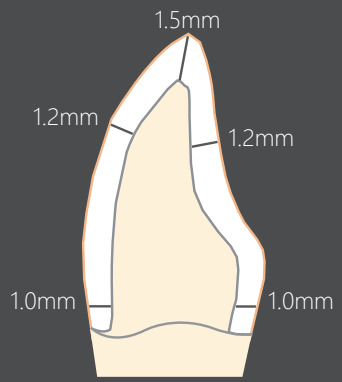
Introduction

Amber[®] LiSi-POZ, the Lithium Disilicate ingots, is designed to be heat-pressed onto Zirconia frameworks. With this press-over technique, the strength of the heat-press format has its most optimized effect elaborated by CAD/CAM technology of Zirconia framework. Designed to be used for heat-pressing over Zirconia frameworks, Amber[®] LiSi-POZ is capable

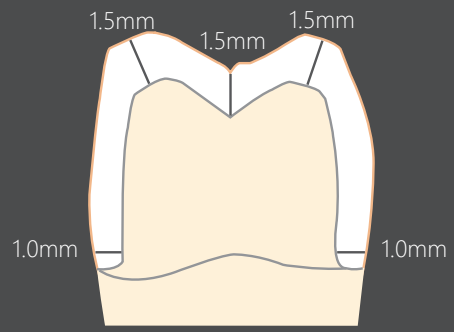
of working as a single unit prosthesis or multi-unit bridge frameworks, and is effective for Zirconia abutment.

Not only is there much less technical requirements needed, but also the working time is cut-down. Trials and tests have proven that heat-pressing technology shows the effectiveness of Amber[®] LiSi-POZ press-on Zirconia.

1 Prep Guide



Anterior Crown

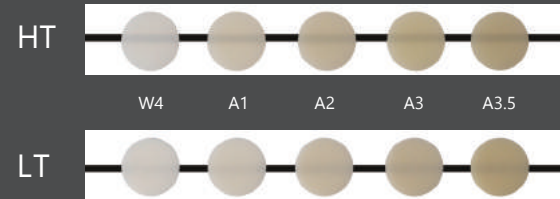


Posterior crown

2 Seleting the ingots

Translucency Levels	Processing Technique		
	Staining Technique	Cut-back Technique	Layering Technique
High Translucency	★	★	★
Low Translucency	★	★	★

Color chart



Conversion chart

Vita Shade <--> Amber [®] LiSi-POZ		LT 0 / HT 0	LT 1 / HT 1	LT 2 / HT 2	LT 3 / HT 3	LT 4 / HT 4
Vita Classic Shade	BL	BL4				
	A	A1	A1 / A2	A2 / A3	A3.5	A4
	B	B1	B2	B2 / B3	B4	B4
	C		C1	C2 / C3	C3	C4
	D			D2 / D3	D3	D3

3 Zirconia Framework

- The required minimum thickness 0.7 mm has to be strictly observed. If not, the strength is not guaranteed either.
- Edge areas should be a rounded shape instead of sharply angled in order to well distribute the pressing stresses. It is important that the restoration is designed in this manner.
- The interproximal connectors on bridges need to be designed in a vertical direction instead of a horizontal direction for strength.
- The design of the framework must be able to support the shape of the restoration, especially the cusps.
- After sintering the Zirconia, it is important not to sandblast it with too high pressure.
- Diamond polishing tools must be used to finish.

- Regeneration Firing

Starting Temp.	Up / Dry	Heating Rate	Max Temp.	Holding Time	Vacuum
500°C	1 min	65°C/min	1,050°C	15 min	NO

To stabilize zirconia framework by transforming from monoclinic to tetragonal phase, please fire at 1,050°C for 15 minutes.

- Weigh the Zirconia framework and record the weight.



4 Contouring






HT / LT
Staining Technique



HT / LT
Cut-back Technique

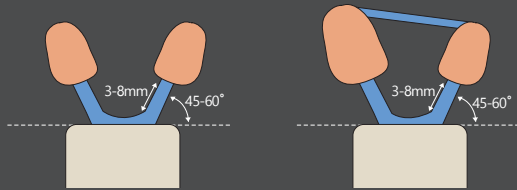


HT / LT
Layering Technique

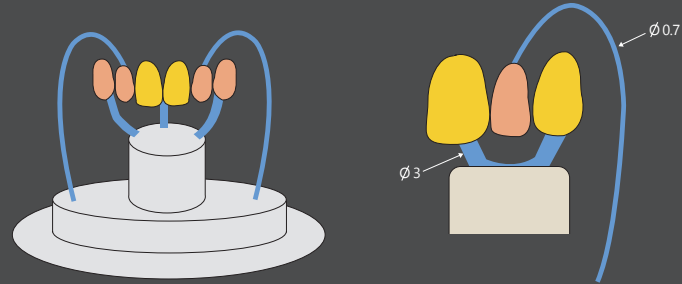
-  Zirconia Framework
-  Wax
-  Veneering Materials

5 Sprueing

Sprueing the single tooth restorations



Sprueing the bridges



※ Note



Measure the overall weight and record it.

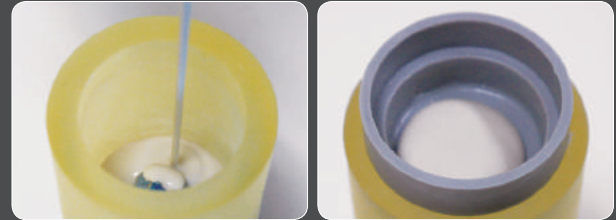
- Overall weight – Zirconia Framework weight = Wax weight
- Do not stack and press the ingots at any times.

Ingot	Wax Weight	Invest Ring
R10 1ea (3g)	~ 0.7g	100 g
R15 1ea (4.5g)	0.7 ~ 1.2g	200 g
R20 1ea (6g)	1.2 ~ 1.7g	200 g

- Do not use two R10 ingots for multi bridge indications.
- R15 or R20 ingots should be used to avoid air trap problems.

6 Investing

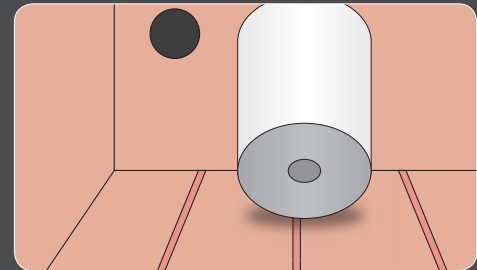
- Do not use a wetting agent(de-bubblizer) on the wax surface.
- For 15~20 seconds, mix by hand and then apply the vacuumed mix for 60 seconds.
- Please refer to the manufacturer's recommendation of use for the detailed investing instruction.



7 Burn Out

- After removing the silicone ring, burn the wax out.
- The upper part of the surface should be lightly scraped before placing in the furnace.

Temperature	Invest: please refer to the manufacturer's recommendation of use
Holding time	Invest: please refer to the manufacturer's recommendation of use
Ingot	No preheating
Plunger	No preheating



Lean the investment ring over the wall to facilitate the emission of gas and wax.

8 Pressing

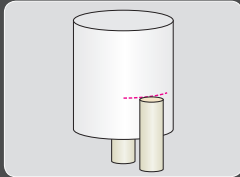
Pressing Schedules

	Translucency	Size	Shade	Investment Ring	Starting Temp.	Heating Rate	Max Temp.	Holding Time	Vacuum On	Vacuum Off
Amber® LiSi-POZ	HT	R10 / R15 (3g) (4.5g)	W4, A1, A2, A3, A4	Small (100g)	700°C	45°C/min	915°C	15 min	700°C	915°C
	LT									
	HT	R20 (6g)		Large (200g)				30 min		
	LT									

※ Note

- There may be a difference between the displayed temperature and the real temperature of each furnace. It is necessary to verify the above standard schedule is suitable for the press furnace before using the Amber® ingots. If it is not, please try to find the optimum temperature through the following process.
 - If there are some traces of tiny bubble on the surface of the restoration ⇒ Please reduce the maximum temperature by 5~10°C and try pressing again.
 - If the marginal area of the restoration is not pressed completely ⇒ Please increase the maximum temperature by 5~10°C and try pressing again.
- When the Amber® LiSi-POZ is used for multi-unit bridge indication which needs two R10 ingots, then R20 ingot should be used to avoid air trap problem.

9 Divesting



Mark the length of the plunger



Separate the investment ring using a separating disk and break at the marked breaking point.



Divest with polishing bur until the object becomes visible.



※ Note

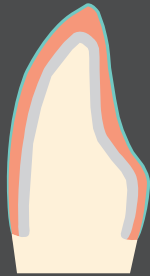
Divesting

- It is not needed to use Al_2O_3 . Glass beads should be used.
- It is recommended to apply 4 bar pressure for the rough removal and 2 bar pressure for more detailed removal.
- After it has cooled down completely, divesting should be taken place.

Separating

- Separating disks should be used with water during sprue cutting to avoid micro fracturing and to keep the restoration cool.

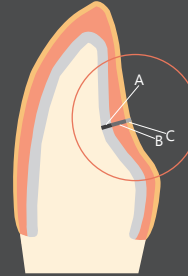
10 Characterizing



HT / LT
Staining Technique



HT / LT
Cut-back Technique



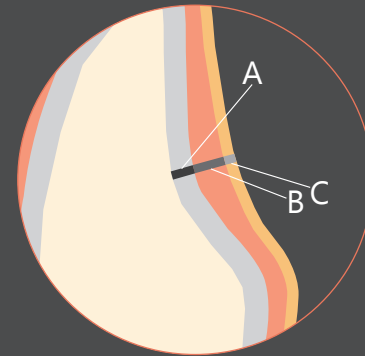
HT / LT
Layering Technique

- Zirconia Framework
- Amber® LiSi-POZ
- Stain Material
- Veneering Material

A : Zirconia framework
B : Amber® LiSi-POZ
C : Veneering material

※ Note

- 1) The minimum thickness is 0.4mm for the Zirconia framework.
- 2) For the baking firing, use rounded supporting pins. It is also recommended that object fix putty be used.

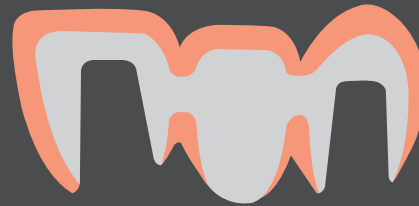


11 Indications



■ Zirconia Framework
■ Amber® LiSi-POZ

Press on multi-unit Zirconia frameworks



Press on implant superstructure made of Zirconia frameworks



Lithium Disilicate Press Ingots

Amber[®] Press



- Flexural strength of 460 MPa.
- Compatible with various porcelain powders.
- Minimized reaction layer.
- Crisp margins.

Lithium Disilicate Press on Zirconia

Amber[®] LiSi-POZ



- Flexural strength of 380 MPa.
- Superior bonding strength with ZrO_2 framework.
- High esthetics with simple staining and glazing.
- Wide range of indications.

Lithium Disilicate Press on Zirconia

Amber[®] LiSi-POZ

User's Manual

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