CEREC Tessera™

Advanced Lithium Disilicate

Processing Guide

THE DENTAL
SOLUTIONS
COMPANY™

Dentsply
Sirona

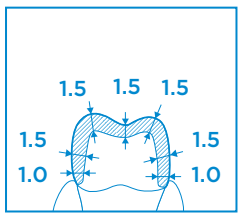
CEREC Tessera™
Advanced Lithium Disilicate

CEREC Tessera™ Advanced Lithium Disilicate is a restorative material specifically designed to fabricate restorations using an in-office CAD/CAM workflow. CEREC Tessera™ Restorations are matrix-fired in just 4 minutes 30 seconds using the CEREC SpeedFire Furnace for increased efficiency.

PREPARATION GUIDELINES

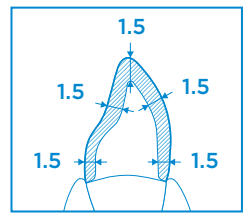
Crowns fabricated from CEREC Tessera™ blocks may be conventionally cemented using resin-modified glass ionomer cements or may be bonded using adhesive resin cements or self-adhesive universal resin cements such as those found within the Dentsply Sirona Calibra® family of cements. To ensure optimal restoration success, follow the tooth preparation guidelines below. In all cases, inlays, onlays or veneers must be placed using a **fully adhesive bonding protocol.**

Minimum Wall Thickness (Conventional Cementation with RMGI Cements*)



Posterior crowns

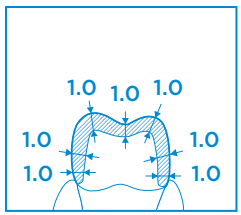
***Taper between 4° and 8°**
minimum coronal length: 4.0 mm
Round internal line angles



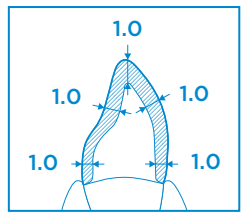
Anterior crowns

***Taper between 4° and 8°**
minimum coronal length: 4.0 mm
Round internal line angles

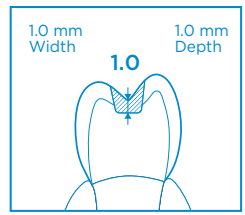
Minimum Wall Thickness (Adhesive Bonding)



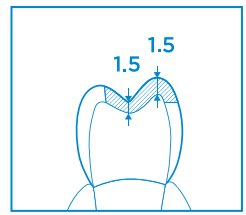
Posterior crowns



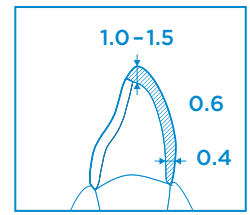
Anterior crowns



Inlays



Onlays



Veneers

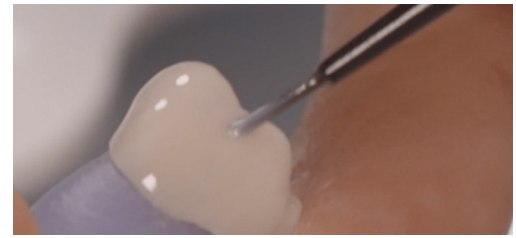
Crowns
- Axial reduction of 1.0 to 1.5 mm.
- Wall angles 4 – 8 degrees with the long axis of the tooth.
- Centric and dynamic occlusion, reduce incisally/occlusally by 1.5 mm.
- Lingual shoulders extended at least 1.0 mm into the proximal contacts surfaces.
- Shoulder preparation without a bevel with all angles rounded.
- Smooth all surfaces.

Inlays/Onlays
- Preparation should be free of undercuts, exhibiting a draw.
- All internal line angles should be rounded.
- Minimum 1.0 mm preparation depth in the central fossa.
- Ensure margins are placed clear of occlusal contact points.
- Use adhesive bonding.

Veneers
- Reduce to 0.6 mm for the labial surface and 0.4 mm in the gingival area.
- Reduce the labiolingual incisal angle by 1.0 to 1.5 mm.
- Locate margins in enamel.
- Use chamfer or rounded-shoulder preparation.
- Locate proximal extensions proximally to conceal preparation margins and to avoid proximal gingival undercuts.
- Use adhesive bonding.

GLAZING AND FIRING

- While the restoration is milling, pre-heat the CEREC SpeedFire furnace by pressing the “pre-heat” button (lower left section of the control screen). The oven will begin pre-heating to 400˚C (taking approximately 1 minute).
- Prior to glazing, the restoration must be clean and free of oil and other surface contaminants. Clean the surface of the restoration with a steam cleaner or clean thoroughly for 30 seconds with cleaning liquid and water. Any contamination after cleaning must be prevented.



Options for Glazing:

Spray or Paste Glaze only

- The Dentsply Sirona Universal Spray Glaze or Dentsply Sirona Universal Overglaze are recommended.
- Apply a thin, even coat of glaze to all sides of the restoration.
- Ensure glaze does not get on the intaglio surface by blocking out with moldable silicone or similar material.
- Note that glaze must be applied to the CEREC Tessera restoration prior to firing.
- Air dry for 10 seconds.
- Apply a second coat if needed.

Stains and Spray Glaze

- Apply stain to restoration as desired.
- Apply a thin, even coat of glaze to all sides of the restoration.
- Ensure glaze does not get on the intaglio surface by blocking out with moldable silicone or similar material.
- Note that glaze must be applied to the CEREC Tessera restoration prior to firing.
- Air dry for 10 seconds.
- Apply a second coat if needed.

Note: glazes and stains by third-party manufacturers may require other firing temperature and cycles than those recommended for CEREC Tessera CAD/CAM blocks

Firing Directions:

- Ensure the restoration is centered in the SpeedFire stage.
- Note that only one (1) restoration at a time may be processed in the CEREC SpeedFire.

For Firing Pad Firing:

- Place the stained and/or glazed restoration on the firing pad, select the job from the control menu of the CEREC SpeedFire and press “Start”.
- If processing an anterior restoration, place the restoration with the lingual side down on the firing pad. With premolars, place the restoration with the interproximal in contact with the firing pad.
- If any imperfections exist on the restoration after firing, they can be corrected by polishing.

For Pin Supported Firing:

- **Use only Dentsply Sirona Investment Pins (REF# 5365490111).**
- Do not use other support devices or refractory putties or processing failure may occur.
- Do not use investment pins with Dentsply Sirona honeycomb or firing pads.

Correct Placement and Position of CEREC Tessera Restoration

General firing parameters for third-party ovens:
CEREC Tessera™ firing programs will have to be added to specific oven programs

Programat CS2, EP 5000/5010

	Standby Temperature B	Closing time S	Heating rate t↑	Firing temperature T	Holding time H	Vacuum on/off	Long-term Cooling L
	°C	min	°C/min	°C	min	Vac 1 (°C), Vac 2 (°C)	°C
Paint-On Glaze (only)	400	3:30	60	760	1:30	off	0
2nd & Subsequent Glaze Firing – if needed	400	3:30	60	760	1:30	off	0
Spray Glaze	400	2:00	60	760	1:30	off	0
Stain and Spray Glaze	400	3:00	60	760	1:30	off	0

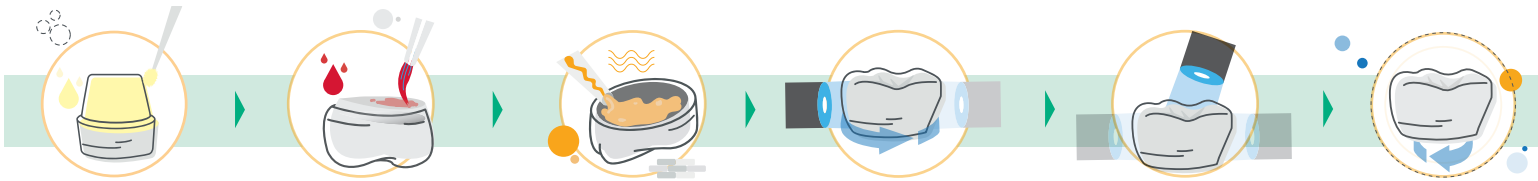
General Firing Recommendation

	Start Temperature	Closing time	Preheating time	Heating rate	Final temperature	Holding time	VAC
	°C	min	min	°C/min	°C	min	min
Paint-On Glaze (only)	400	2:00	2:00	55	760	2:00	–
2nd & Subsequent Glaze Firing – if needed	400	2:00	2:00	55	760	2:00	–
Spray Glaze	400	1:00	1:00	55	760	2:00	–
Stain and Spray Glaze	400	2:00	1:00	55	760	2:00	–

Note: Please visit www.dentsplysirona.com/CERECTessera for other furnace firing programs

CEREC Tessera™ blocks can be adhesively bonded or conventionally cemented based on the prep guidelines

ADHESIVE CEMENTATION with Calibra® Ceram Cement and Prime&Bond Adhesive*



Apply and agitate Prime&Bond adhesive for 20 Seconds, then evaporate solvent.**(Phosphoric Etching is optional)

Carefully etch the internal surfaces of the restoration for 30 seconds with 5% hydrofluoric acid, then rinse thoroughly and apply Calibra® Silane Coupling Agent.

Apply Calibra® CeramAdhesive Resin Cement.

Seat restoration. Briefly light cure cement at the margins by moving the curing light tip in a constant motion around the margins for no more than 5 seconds per surface to initiate the gel phase. Clean up excess cement.

For final polymerization, light cure all areas of the restoration for 20 seconds total (buccal, lingual, and occlusal).

Polish the margins to ensure a smooth surface and impart a high luster.

* Prime&Bond elect®, Prime&Bond Universal™ or Prime&Bond active® Adhesive.
** For restorations thicker than 2.5 mm, cure adhesive prior to seating the restoration.

CONVENTIONAL CEMENTATION

Tooth Preparation

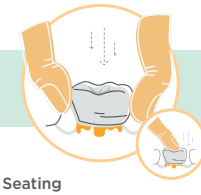
Clean, rinse, and dry. Do not desiccate. Isolate with cotton rolls.

Preparation of the Restoration

Etch intaglio surfaces for 30 seconds with 5% HF acid.

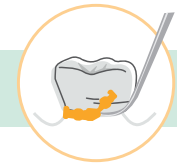
Application

Apply cement.



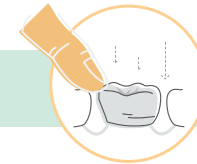
Seating

Seat the restoration and stabilize it under pressure, to avoid any movements, until the cement reaches a rubber-like consistency.



Excess Cement Cleanup

Remove excess material when the cement has reached the rubber-like consistency, approximately 2 minutes after seating crown.



Stabilizing

Stabilize for an additional **4 minutes** cement is 6 minutes afer insertion. **(6-8 minutes from start of mix).**

Note: Do not use any pre-treatment agents, eg, silanes, primers, or bonding agents when using Calibra® Bio cement. Use of any such pre-treatments will destroy the bond between cement and restoration.Adhesive

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