

# IPS e.max<sup>®</sup> CAD – STEP-BY-STEP FOR CEREC<sup>®</sup>



# 1

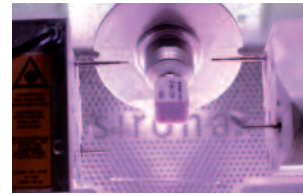
**Preparation**  
CAD/CAM process  
**Try-in**



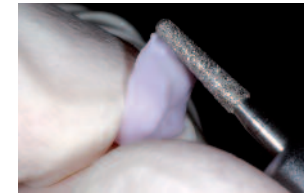
Observe the preparation guide-lines and minimum thicknesses for **preparation**



As a preparation for intra-oral imaging, cover the preparation with **IPS Contrast Spray Chairside**



**CAD/CAM process**  
Mill the restoration from **IPS e.max CAD**



**Smooth out the attachment points** and finish the restoration. **Observe the minimum thickness and contact points.**



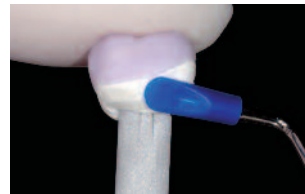
**Try in** the restoration in its blue state. Check and adjust the occlusion/articulation, if required.

# 2

**Preparation for combination firing\***  
(Crystallization and Glaze)



Fill the restoration with **IPS Object Fix Putty** and press the **IPS e.max CAD Crystallization Pin** into the Putty material.



**Adapt IPS Object Fix Putty** to the pin and crown margin. Avoid contamination of the outer side of the restoration.



**Remove** any **contamination** from the outer surface of the crown using a brush dampened in water.



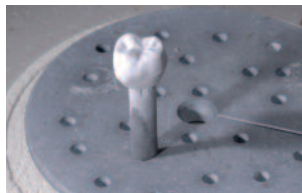
Apply individual characterizations using **IPS e.max CAD Crystall./Shades and Stains**.



Spray an even and covering layer of **IPS e.max CAD Crystall./Glaze Spray** onto the restoration.

# 3

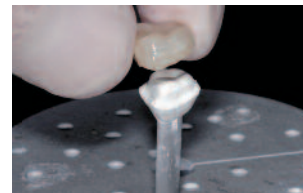
**Combination firing**  
**Cleaning**  
**Try-in**



Place the restoration in the center of the **IPS e.max CAD Crystallization Tray**.



Conduct the **combination firing** based on the number of restorations and the type of glazing using the **Programat CS**.



After cooling, **remove** the **restoration** from the auxiliary firing paste.



**Clean** the **restoration** with ultrasound in a water bath.



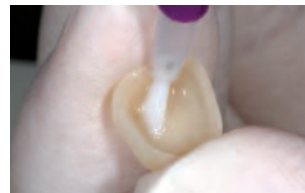
After crystallization, **try in** the restoration.

# 4

**Preparation for cementation**  
**Placement**



Before final placement, **etch** the **restoration** for **20 seconds** using **IPS Ceramic Etching Gel**.



Allow **Monobond-S** to react for 60 seconds and dry with air.



**Clean** the **preparation**, rinse with water and blow dry with air.



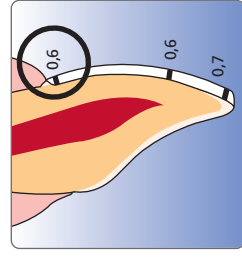
**Apply Multilink Automix** directly into the restoration.



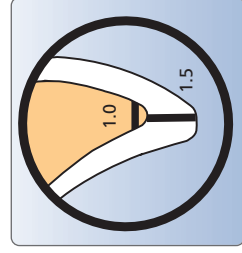
**IPS e.max CAD** restoration in situ.

\* IPS e.max CAD Crystall./Glaze Paste may optionally be used to glaze the restoration. For the fabrication of inlays and onlays, observe the Instructions for Use of IPS e.max chairside!

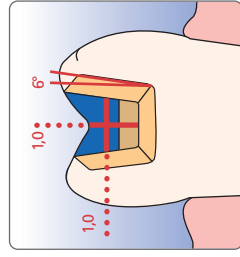
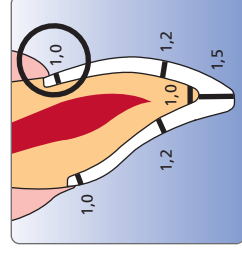
### Preparation guidelines



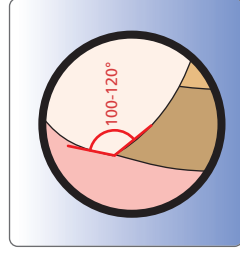
Veneer



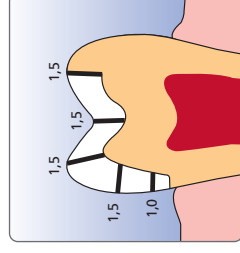
Anterior crown



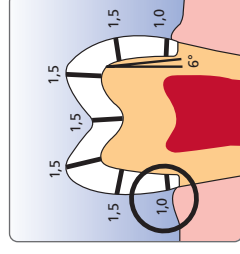
Inlay



Onlay



Partial crown



Posterior crown

### Firing parameters for IPS e.max CAD in the Programat CS

#### Crystallization/Glaze (max. 6 restorations)

Furnace	Stand-by temperature B [°C/°F]	Closing time S (min)	Closing time $t_1$ [°C/°F/min]	Firing temperature T <sub>1</sub> [°C/°F]	Holding time H <sub>1</sub> (min)	Heating rate $t_2$ [°C/°F/min]	Firing temperature T <sub>2</sub> [°C/°F]	Holding time H <sub>2</sub> (min)	Vacuum 1 Z <sub>1</sub> [°C/°F] Z <sub>2</sub> [°C/°F]	Vacuum 2 Z <sub>1</sub> [°C/°F] Z <sub>2</sub> [°C/°F]	Longterm cooling L [°C/°F]	Longterm $t_3$ [°C/°F/min]
Programat CS Program 1	403 / 757	6:00	90 / 162	820 / 1508	0:10	30 / 54	840 / 1544	7:00	550/820 1022 / 1508	820/840 1508 / 1544	700 / 1292	0

#### Correction firing

Furnace	Stand-by temperature B [°C/°F]	Closing time S (min)	Closing time $t_1$ [°C/°F/min]	Firing temperature T <sub>1</sub> [°C/°F]	Holding time H <sub>1</sub> (min)	Heating rate $t_2$ [°C/°F/min]	Firing temperature T <sub>2</sub> [°C/°F]	Holding time H <sub>2</sub> (min)	Vacuum 1 Z <sub>1</sub> [°C/°F] Z <sub>2</sub> [°C/°F]	Vacuum 2 Z <sub>1</sub> [°C/°F] Z <sub>2</sub> [°C/°F]	Longterm cooling L [°C/°F]	Longterm $t_3$ [°C/°F/min]
Programat CS Program 2	403 / 757	6:00	90 / 162	820 / 1508	0:10	30 / 54	840 / 1544	3:00	550/820 1022 / 1508	820/840 1508 / 1544	700 / 1292	0

#### Speed Crystallization/Glaze Spray (max. 2 restorations with Glaze Spray)

Furnace	VZ Stand-by temperature B [°C/°F]	Closing time S (min)	Closing time $t_1$ [°C/°F/min]	Firing temperature T <sub>1</sub> [°C/°F]	Holding time H <sub>1</sub> (min)	Heating rate $t_2$ [°C/°F/min]	Firing temperature T <sub>2</sub> [°C/°F]	Holding time H <sub>2</sub> (min)	Vacuum 1 Z <sub>1</sub> [°C/°F] Z <sub>2</sub> [°C/°F]	Vacuum 2 Z <sub>1</sub> [°C/°F] Z <sub>2</sub> [°C/°F]	Longterm cooling L [°C/°F]	Longterm $t_3$ [°C/°F/min]
Programat CS Program 3	403 / 757	1:30	90 / 162	820 / 1508	0:10	30 / 54	840 / 1544	7:00	550/820 1022 / 1508	820/840 1508 / 1544	700 / 1292	0

#### Please note:

- If a glaze past is used, Speed Crystallization/Glaze Spray is contraindicated.
- Speed Crystallization and Crystallization/Glaze are not suitable for the crystallization of IPS e.max CAD MO!

### Cementation



#### IPS e.max CAD (lithium disilicate glass-ceramic)

Indication	Veneers, Inlays, partial crowns	Anterior and posterior crowns
Cementation method	adhesive	adhesive self-adhesive* / conventional
Etching	20 sec. with IPS Ceramic Etching Gel	20 sec. with IPS Ceramic Etching Gel
Conditioning/Silanating	60 sec. with Monobond-S	60 sec. with Monobond-S ----- <sup>1)</sup>
Cementation material	Variolink Veneer, Variolink II, Multilink Automix	Variolink II, Multilink Automix, Vivaglass CEM

<sup>1)</sup> For self-adhesive cementation, the restorations must be silanized.

\* self-adhesive powder/liquid systems