



Celtra® Duo

Developed to make a difference

Firing recommendations

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THE DENTAL  
SOLUTIONS  
COMPANY™

 Dentsply  
Sirona



Celtra® Duo

Celtra® is the new generation of high strength glass ceramics, zirconia-reinforced lithium silicate - ZLS.

The outstanding physical properties of ZLS provide a unique microstructure, allowing for exquisite beauty, strength and speed. Celtra® delivers exceptional performance, including optimized balance of translucency and opalescence, reduced crystal size which serves to increase flexural strength, and a fine microstructure for processing speed efficiencies.





# Glaze firing recommendations

**Glaze firing of Celtra Duo should be performed using the following firing parameters:**

- › Starting temperature 500 °C.
- › Place the object in the furnace on a firing support or a firing tray with firing pad.
- › Sufficiently pre-dry the object in the furnace.

## General firing recommendations

	First glaze firing	Second and subsequent glaze firings
<b>Pre-drying</b>	2:00 min plus 2:00 min when using SuperPeg II	2:00 min plus 2:00 min when using SuperPeg II
<b>Drying</b> (depending on the type of furnace)	2:00 min	2:00 min
<b>Preheating</b>	2:00 min	2:00 min
<b>Start temperature</b>	500°C	500°C
<b>Heating rate</b>	60°C / min	60°C / min
<b>Final temperature</b>	820°C	770°C
<b>Vacuum</b>	Off	Off
<b>Holding time</b>	1:30 min	1:30 min
<b>Cooling*</b>	3:00 min	3:00 min

*\* This cooling period of three minutes is only required for objects placed on firing pins or when using an auxiliary firing paste. If the object is placed directly on firing cotton with a firing support, no cooling phase is required.*

**Recommendation:**

Celtra Duo is very stable when fired and can be processed in a ceramic furnace without the use of firing paste.

**\* Always use long-term cooling when using firing paste/firing pins:**

- › When using a refractory material/firing paste (Superpeg II), the pre-drying time should be extended by 2-3 min.
- › Only thin, scale-free metal pins or thin ceramic pins should be used for anchoring the objects in the firing paste. Make sure that the pins do not touch the restoration. Apply only small quantities of firing paste, just enough to secure the restoration, on the pin. Avoid filling the restoration completely with firing paste.

**The final temperature of 820 °C must not be exceeded, not even briefly as a result of heating unit hysteresis.**



# Glaze firing recommendations

## Glaze firing of Celtra Duo should be performed using the following firing parameters:

- › Starting temperature 500 °C.
- › Place the object in the furnace supported on firing cotton or firing pad.
- › Sufficiently pre-dry the object in the furnace.

## Firing recommendations for the Programat P 500, EP 3000/5000

	Standby temperature	Closing time	Heating rate	Firing temperature	Holding time	Vacuum on/off	Longterm cooling L
First stain/ glaze firing	500 °C	3:30 min.	60 °C	820 °C	1:00 min.	-	* 750 °C
Second stain/ glaze firing	500 °C	3:30 min.	60 °C	770 °C	1:00 min.	-	* 750 °C

\* This cooling period of three minutes is only required for objects placed on firing pins or when using an auxiliary firing paste. If the object is placed directly on firing cotton with a firing support, no cooling phase is required.

## Recommended firing parameters for the Programat CS/CS2

Standby temperature		500 °C
Closing time	S	3:30 min.
Heating rate	t ↑	60 °C
Holding temperature	T	820 °C (First stain) / 770 °C (Second stain)
Holding time	H	1:00 min.
Cooling temperature	t L	50 °C
Longterm cooling	L	750 °C (First stain) / 750 °C (Second stain)

### Recommendation:

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**The final temperature of 820 °C must not be exceeded, not even briefly as a result of heating unit hysteresis.**



# General Firing Recommendation & VACUMAT/VITA

	Pre-drying [°C]	→ min. Pre-drying	↗ °C/min.	T °C End temp.	→ min. Holding time	→ min. Long-term cooling	VAC min.
<b>Celtra Paint-on Glaze</b>	500	4:00	60	820	1:00	3:00	-
<b>2nd &amp; subsequent Glaze Firing (if needed)</b>	500	4:00	60	770	1:00	3:00	-
<b>Spray Glaze (Indenco)</b>	500	3:00	60	820	1:00	3:00	-
<b>Polish &amp; Fire</b>	500	2:00	60	820	1:00	3:00	-
<b>Correction Porcelain</b>	500	4:00	55	820	1:30	3:00	1:30

## Recommendation:

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- › When using a refractory material/firing paste (Superpeg II), the pre-drying time should be extended by 2-3 min.
- › Only thin, scale-free metal pins or thin ceramic pins should be used for anchoring the objects in the firing paste. Make sure that the pins do not touch the restoration.  
Apply only small quantities of firing paste, just enough to secure the restoration, on the pin.  
Avoid filling the restoration completely with firing paste.

**The final temperature of 820 °C must not be exceeded, not even briefly as a result of heating unit hysteresis.**





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The logo for Dentsply Sirona, featuring a stylized 'S' icon to the left of the text 'Dentsply Sirona' in a sans-serif font.

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