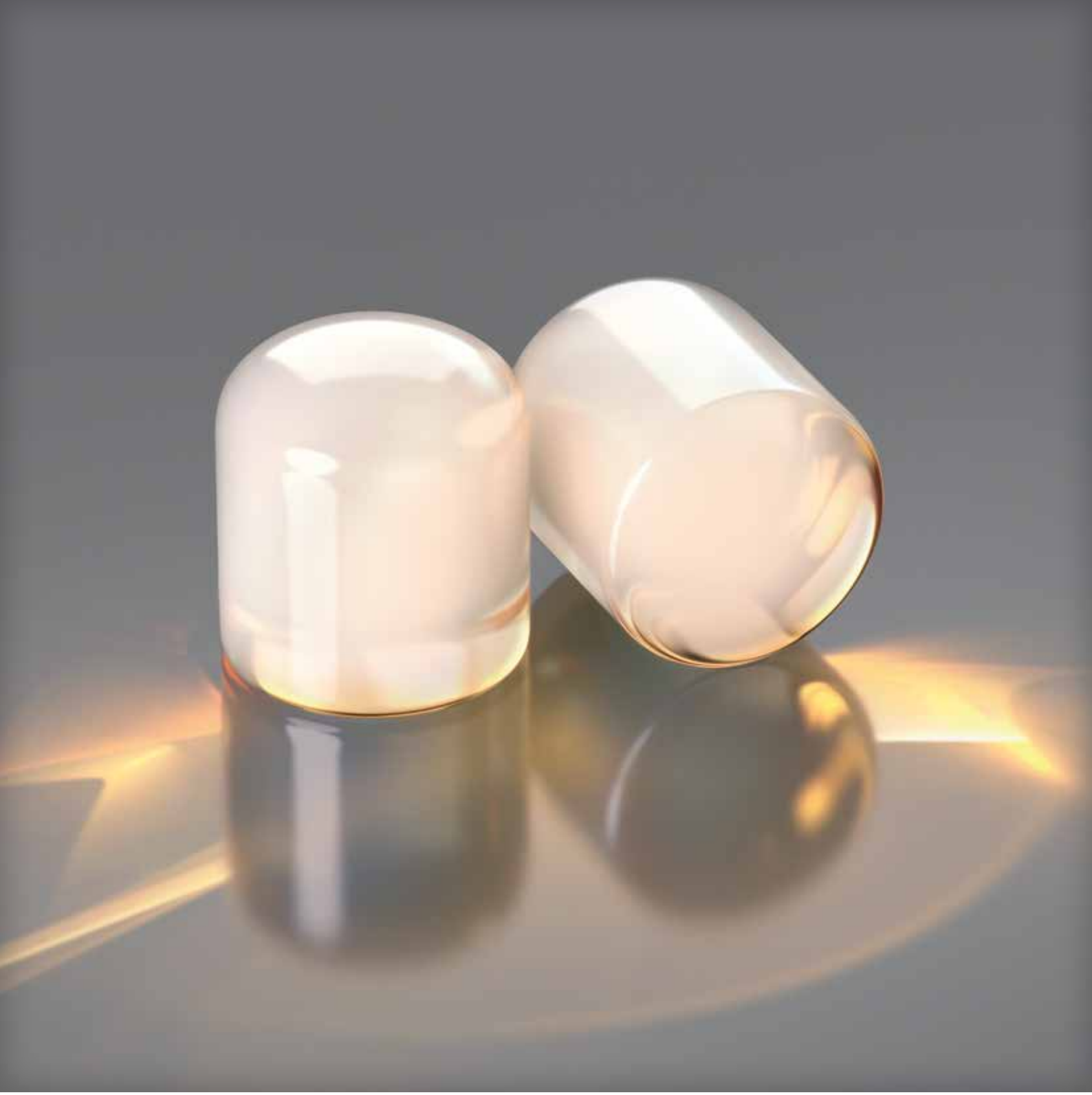


Celtra® Press System

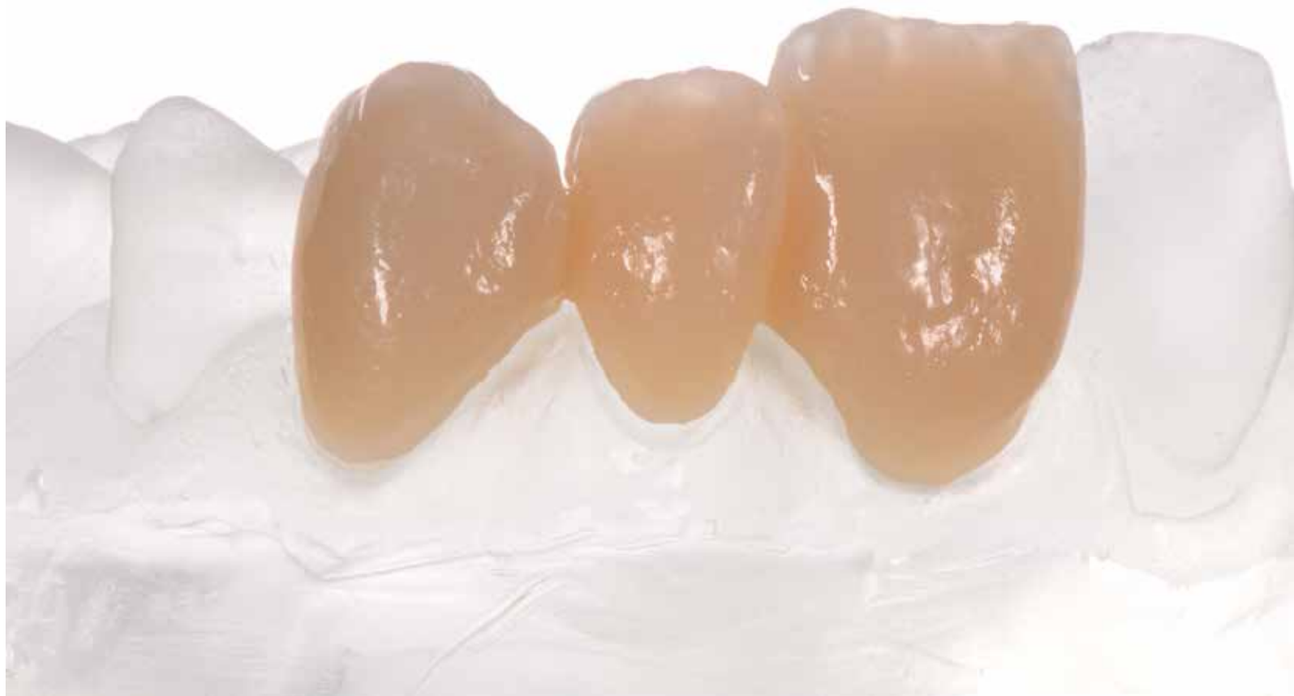
Developed to make a difference

General firing guidelines

Dentsply Sirona Prosthetics

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

The outstanding chemical 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.



General pressing and firing recommendations

Pressing programs

	Start	Heating rate	Final temperature	Holding time	Pressing time
Crown, Inlay, Onlay	700 °C	40 °C per min	860 °C (100g ring) 865 °C (200g ring)	30 min	3 min
Bridge	700 °C	40 °C per min	870 °C (200g ring)	30 min	3 min

Firing program Celtra® Ceram

		Drying	Closing	Pre-heating temp./ Vac. start	Pre-heating	Heating rate	Final temp./ Vac. stop	Holding with vacuum	Holding without vacuum	Cooling*
		min	min	°C	min	°C/min	°C	min	min	min
Cut-back	**Power firing***	0	1	400	1	55	760	0	2	0
	1st Dentin & Enamel	2	2	400	2	55	770	1	1	5
	2nd Dentin & Enamel	2	2	400	2	55	760	1	1	5
	Glaze	2	2	400	2	55	750	0	2	5
	Add-on (with and after glaze firing)	2	2	400	2	55	750	1	1	5
Fully contoured	**Power firing* 1st Glaze**	2	2	400	2	55	760	0	2	5
	2nd Glaze	2	2	400	2	55	750	0	2	5
	Add-on (with 1st glaze firing)	2	2	400	2	55	760	1	1	5
	Add-on (after glaze firing)	2	2	400	2	55	750	1	1	5

* In furnaces that cannot constitute a cooling phase, it is recommended to cool down to 600 °C until removal of the object.

Note:
1. Slow cooling is mandatory; this includes correction firings of restorations after try-in.
2 Firing temperatures must be adapted to the number of units fired in the same cycle.
a. 5 to 9 units require an increase by 5 °C to 10 °C;
b. 10 or more units require an increase by 10 °C to 20 °C.

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REV 2016-09

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* Power firing is a firing program that is carried out before the first firing of the veneering ceramic layer. Power firing increases the flexural strength of the Celtra® Press restoration to more than 400 MPa.

Multimat NT/NTX

Pressing program

	Start	Heating rate	Final temperature	Holding time	Pressing time	Pressure
Crown, Inlay, Onlay	700 °C	40 °C per min	860 °C (100g ring) 865 °C (200g ring)	30 min	3 min	2,7 bar
Bridge	700 °C	40 °C per min	870 °C (200g ring)	30 min	3 min	2,7 bar

Firing program Celtra® Ceram

		Pre-drying	Drying	Pre-heating temperature	Pre-heating time	Hea-ting rate	Vacuum level	Final tempera-ture	Holding time*	Vacuum time	Tem-pering tempe-rature	Tempe-ring	Coo-ling**
		min	min	°C	min	°C/min	hPa	°C	min	min	°C	min	min
Cut-back	**Power firing***	0	1	400	1	55	0	760	2	0	0	0	0
	Dentine 1	0	4	400	2	55	50	770	2	1	0	0	5
	Dentine 2	0	4	400	2	55	50	760	2	1	0	0	5
	Glaze	0	4	400	2	55	0	750	2	0	0	0	5
	Add-on (with and after glaze firing)	0	4	400	2	55	50	750	2	1	0	0	5
Fully contoured	**Power firing* includes**												
	1st Glaze	0	4	400	2	55	0	760	2	0	0	0	5
	2nd Glaze	0	4	400	2	55	0	750	2	0	0	0	5
	Add-on (with 1st glaze firing)	0	4	400	2	55	50	760	2	1	0	0	5
	Add-on (after glaze firing)	0	4	400	2	55	50	750	2	1	0	0	5

* Hold time w/o vacuum

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Celtra® Press

Programat EP3000/5000

Pressing program

Standby	Heating rate tj	Final temperature T	Holding time H	Stopping speed E
700 °C	40 °C per min	860 °C (100g ring) 865 °C (200g ring) 870 °C (Bridge, 200g ring)	30 min	250

Firing program Celtra® Ceram

		Closing time min:s	Temperature gradient °C	Holding tempera-ture °C	Holding time min:s	Vacuum on	Vacuum off	One-step program	Pre-vacuum	Long-term cooling °C	Cooling gradient	Stand-by temperature °C
		S	tg	T	H	V1	V2			L	th	B
Cut-back	**Power firing***	2	55	760	2	0	0	Yes	0	0	0	400
	Dentine 1	6	55	770	2	400	769	Yes	0	650	50	400
	Dentine 2	6	55	760	2	400	759	Yes	0	650	50	400
	Glaze	6	55	750	2	0	0	Yes	0	650	50	400
	Add-on (with and after glaze firing)	6	55	750	2	400	749	Yes	0	650	50	400
Fully contoured	**Power firing* includes**											
	1st Glaze	6	55	760	2	0	0	Yes	0	650	50	400
	2nd Glaze	6	55	750	2	0	0	Yes	0	650	50	400
	Add-on (with 1st glaze firing)	6	55	760	2	400	759	Yes	0	650	50	400
	Add-on (after glaze firing)	6	55	750	2	400	749	Yes	0	650	50	400

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Zubler Vario 300

Pressing program

	Program type	Start temperature	Heating rate	Final temperature	Holding time	Pressing time	Pressure	Vacuum level	Opening time	
		°C	°C/min	°C	min	min		mm		
Crowns etc.	Press	700	40	860 °C (100g ring) 865 °C (200g ring)	30	3	low	710	0	Please calibrate the furnace before using. Silverprobe or calibration tool
Bridges	Press	700	40	870 °C (200g ring)	30	3	low	710	0	

Firing program Celtra® Ceram

		Pro-gram type	Start temperature	Pre-drying	Pre-heating time	Closing	Heating rate	Final temperature	Holding time	Opening time	Vacuum	Vac. start	Vac. end
			°C		min	min		°C	min	min			min
Cut-back	**Power firing***	standard	400	Yes	1	1	55	760	2	0	No	no	no
	Dentine 1		400	Yes	2	4	55	770	2	5	Yes	400	770
	Dentine 2		400	Yes	2	4	55	760	2	5	Yes	400	760
	Glaze		400	Yes	2	4	55	750	2	5	No	–	–
	Add-on (with and after glaze firing)		400	Yes	2	4	55	750	2	5	Yes	400	750
Fully contoured	**Power firing* includes**												
	1st Glaze		400	Yes	2	4	55	760	2	5	No	–	–
	2nd Glaze		400	Yes	2	4	55	750	2	5	No	–	–
	Add-on (with 1st glaze firing)		400	Yes	2	4	55	760	2	5	Yes	400	760
	Add-on (after glaze firing)		400	Yes	2	4	55	750	2	5	Yes	400	750

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Celtra® Press

Cergo Press

Pressing program

	Start	Vacuum	Increase	Final temperature	Holding	Pressing
Crowns, Inlays, Onlays	700 °C	Cont	40 °C/min	860 °C (100g ring) 865 °C (200g ring)	30 min	3 min
Bridge	700 °C	Cont	40 °C/min	870 °C (200g ring)	30 min	3 min

Firing program Celtra® Ceram

		Drying	Closing	Pre-heating	Increase	Vacuum	Final temp.	Holding*	Tempering	Cooling**
		°C	min	min	°C	min	°C/min	on/off/ cont	On/ °C	Off/ °C	°C	V min	min	min	°C	min
Cut-back	**Power firing***	135	0	1	400	1	55	off	–	–	760	0	2	–	–	0
	Dentine 1	135	2	2	400	2	55	cont	400	770	770	1	1	–	–	5
	Dentine 2	135	2	2	400	2	55	cont	400	760	760	1	1	–	–	5
	Glaze	135	2	2	400	2	55	off	–	–	750	0	2	–	–	5
	Add-on (with and after glaze firing)	135	2	2	400	2	55	cont	400	750	750	1	1	–	–	5
Fully contoured	**Power firing* includes**															
	1st Glaze	135	2	2	400	2	55	off	–	–	760	0	2	–	–	5
	2nd Glaze	135	2	2	400	2	55	off	–	–	750	0	2	–	–	5
	Add-on (with 1st glaze firing)	135	2	2	400	2	55	cont	400	760	760	1	1	–	–	5
	Add-on (after glaze firing)	135	2	2	400	2	55	cont	400	750	750	1	1	–	–	5

* Hold time w/o vacuum

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Profire press

Press program

	Starting temp.	Heating rate	Final temp.	Holding time	Pressing time	Pressure
Crowns, Inlays, Onlays	700 °C	40 °C	100g | 860 °C 200g | 865 °C	30 min	3 min	2,7 bar
Bridge	700 °C	40 °C	200g | 870 °C	30 min	3 min	2,7 bar

Firing program Celtra® Ceram

		Drying	Closing	Pre-heating	Vacuum		Heating rate	Final temp.	Vacuum time	Holding time*	Tempering	Cooling**
		°C	min	min	°C	min	on/off/ cont	On/ °C	Off/ °C	°C/min	°C	V min	min	min	°C	min
Cut-back	**Power firing***	135	0	1	400	1	off	–	–	55	760	0	2	–	–	0
	Dentine 1	135	2	2	400	2	cont.	400	770	55	770	1	1	–	–	5
	Dentine 2	135	2	2	400	2	cont.	400	760	55	760	1	1	–	–	5
	Glaze	135	2	2	400	2	off	–	–	55	750	0	2	–	–	5
	Add-on (with and after glaze firing)	135	2	2	400	2	cont.	400	750	55	750	1	1	–	–	5
Fully contoured	**Power firing* includes**															
	1st Glaze	135	2	2	400	2	off	–	–	55	760	0	2	–	–	5
	2nd Glaze	135	2	2	400	2	off	–	–	55	750	0	2	–	–	5
	Add-on (with 1st glaze firing)	135	2	2	400	2	cont.	400	760	55	760	1	1	–	–	5
	Add-on (after glaze firing)	135	2	2	400	2	cont.	400	750	55	750	1	1	–	–	5

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Celtra® Press

Notes

22294/REV 2016-09

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