

# General pressing and firing recommendations

## Pressing programs

	Start	Heating rate	Final temperature	Holding time	Pressing time	Pressure
<b>Crown, Inlay, Onlay</b>	700 °C	40 °C per min	860 °C (100g ring) 865 °C (200g ring)	30 min	3 min	Depending on the press furnace
<b>Bridge</b>	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	
<b>Power firing**</b>	0	1	400	1	55	760	0	2	0	
<b>Cut-back</b>	<b>1<sup>st</sup> Dentin &amp; Enamel</b>	2	2	400	2	55	770	1	1	5
	<b>2<sup>nd</sup> Dentin &amp; Enamel</b>	2	2	400	2	55	760	1	1	5
	<b>Glaze</b>	2	2	400	2	55	750	0	2	5
	<b>Add-on (with and after glaze firing)</b>	2	2	400	2	55	750	1	1	5
<b>Fully contoured</b>	<b>Power firing** 1<sup>st</sup> Glaze</b>	2	2	400	2	55	760	0	2	5
	<b>2<sup>nd</sup> Glaze</b>	2	2	400	2	55	750	0	2	5
	<b>Add-on (with 1<sup>st</sup> glaze firing)</b>	2	2	400	2	55	760	1	1	5
	<b>Add-on (after glaze firing)</b>	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.

\*\* 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 500 MPa.

**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.



# Multimat NT/NTX

## Pressing program

	Start	Heating rate	Final temperature	Holding time	Pressing time	Pressure
<b>Crown, Inlay, Onlay</b>	700 °C	40 °C per min	860 °C (100g ring) 865 °C (200g ring)	30 min	3 min	2,7 bar
<b>Bridge</b>	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	Heating rate	Vacuum level	Final temperature	Holding time*	Vacuum time	Tempering temperature	Tempering	Cooling**
	min	min	°C	min	°C/min	hPa	°C	min	min	°C	min	min
<b>Cut-back</b>	<b>Power firing***</b>	0	1	400	1	55	0	760	2	0	0	0
	<b>Dentine 1</b>	0	4	400	2	55	50	770	2	1	0	5
	<b>Dentine 2</b>	0	4	400	2	55	50	760	2	1	0	5
	<b>Glaze</b>	0	4	400	2	55	0	750	2	0	0	5
	<b>Add-on</b> (with and after glaze firing)	0	4	400	2	55	50	750	2	1	0	5
<b>Fully contoured</b>	<b>Power firing*** includes</b>											
	<b>1st Glaze</b>	0	4	400	2	55	0	760	2	0	0	5
	<b>2nd Glaze</b>	0	4	400	2	55	0	750	2	0	0	5
	<b>Add-on</b> (with 1st glaze firing)	0	4	400	2	55	50	760	2	1	0	5
	<b>Add-on</b> (after glaze firing)	0	4	400	2	55	50	750	2	1	0	5

\* Hold time w/o vacuum

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# Programat EP3000/5000

## Pressing program

Standby	Heating rate t↑	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 temperature °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	t↑	T	H	V1	V2			L	t↓	B	
<b>Cut-back</b>	<b>Power firing*</b>	2	55	760	2	0	0	Yes	0	0	0	400
	<b>Dentine 1</b>	6	55	770	2	400	769	Yes	0	650	50	400
	<b>Dentine 2</b>	6	55	760	2	400	759	Yes	0	650	50	400
	<b>Glaze</b>	6	55	750	2	0	0	Yes	0	650	50	400
	<b>Add-on</b> (with and after glaze firing)	6	55	750	2	400	749	Yes	0	650	50	400
<b>Fully contoured</b>	<b>Power firing* includes</b>											
	<b>1st Glaze</b>	6	55	760	2	0	0	Yes	0	650	50	400
	<b>2nd Glaze</b>	6	55	750	2	0	0	Yes	0	650	50	400
	<b>Add-on</b> (with 1st glaze firing)	6	55	760	2	400	759	Yes	0	650	50	400
	<b>Add-on</b> (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 °C	Heating rate °C/min	Final temperature °C	Holding time min	Pressing time min	Pressure	Vacuum level mm	Opening time	Please calibrate the furnace before using. Silver Wire Test or calibration tool
<b>Crowns etc.</b>	Press	700	40	860 °C (100g ring) 865 °C (200g ring)	30	3	low	710	0	
<b>Bridges</b>	Press	700	40	870 °C (200g ring)	30	3	low	710	0	

## Firing program Celtra® Ceram

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

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# Cergo Press

## Pressing program

	Start	Vacuum	Increase	Final temperature	Holding	Pressing	Pressure
<b>Crowns, Inlays, Onlays</b>	700 °C	Cont	40 °C/min	860 °C (100g ring) 865 °C (200g ring)	30 min	3 min	4.5 bar
<b>Bridge</b>	700 °C	Cont	40 °C/min	870 °C (200g ring)	30 min	3 min	4.5 bar

## 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	
<b>Cut-back</b>	<b>Power firing***</b>	135	0	1	400	1	55	off	-	-	760	0	2	-	-	0
	<b>Dentine 1</b>	135	2	2	400	2	55	cont	400	770	770	1	1	-	-	5
	<b>Dentine 2</b>	135	2	2	400	2	55	cont	400	760	760	1	1	-	-	5
	<b>Glaze</b>	135	2	2	400	2	55	off	-	-	750	0	2	-	-	5
	<b>Add-on</b> (with and after glaze firing)	135	2	2	400	2	55	cont	400	750	750	1	1	-	-	5
<b>Fully contoured</b>	<b>Power firing*** includes</b>															
	<b>1<sup>st</sup> Glaze</b>	135	2	2	400	2	55	off	-	-	760	0	2	-	-	5
	<b>2<sup>nd</sup> Glaze</b>	135	2	2	400	2	55	off	-	-	750	0	2	-	-	5
	<b>Add-on</b> (with 1 <sup>st</sup> glaze firing)	135	2	2	400	2	55	cont	400	760	760	1	1	-	-	5
	<b>Add-on</b> (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
<b>Crowns, Inlays, Onlays</b>	700 °C	40 °C	100g   860 °C 200g   865 °C	30 min	3 min	2,7 bar
<b>Bridge</b>	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	
<b>Cut-back</b>	<b>Power firing***</b>	135	0	1	400	1	off	-	-	55	760	0	2	-	-	0
	<b>Dentine 1</b>	135	2	2	400	2	cont.	400	770	55	770	1	1	-	-	5
	<b>Dentine 2</b>	135	2	2	400	2	cont.	400	760	55	760	1	1	-	-	5
	<b>Glaze</b>	135	2	2	400	2	off	-	-	55	750	0	2	-	-	5
	<b>Add-on</b> (with and after glaze firing)	135	2	2	400	2	cont.	400	750	55	750	1	1	-	-	5
<b>Fully contoured</b>	<b>Power firing*** includes</b>															
	<b>1st Glaze</b>	135	2	2	400	2	off	-	-	55	760	0	2	-	-	5
	<b>2nd Glaze</b>	135	2	2	400	2	off	-	-	55	750	0	2	-	-	5
	<b>Add-on</b> (with 1st glaze firing)	135	2	2	400	2	cont.	400	760	55	760	1	1	-	-	5
	<b>Add-on</b> (after glaze firing)	135	2	2	400	2	cont.	400	750	55	750	1	1	-	-	5

\* Hold time w/o vacuum

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