

I. Firing Programs

F-Fahrenheit C-Celsius

Process		Pre- Opaque±	Paste/Powder Opaque	Dentine 1*	Dentine 2*	Glaze 1	Glaze 2	1st HM Margin	2nd HM Margin	LM Margin	Correction Margin
Start	(F-C)	790-420	790-420	800-430	800-430	800-430	800-430	800-430	800-430	800-430	800-430
Dry	(minute)	03:00	06:00	05:00	03:00	01:00	01:00	03:00	03:00	03:00	01:00
Pre Heat†	(minute)	0	03:00	01:00	01:00	01:00	01:00	01:00	01:00	01:00	01:00
Heat Rate	(F-C per min)	180-100	180-100	180-100	180-100	180-100	180-100	180-100	180-100	180-100	180-100
High Temp	(F-C)	see	1716-930	1600-870	1580-860	1544-840	1526-830	1645-896	1634-890	1390-754	1544-840
Hold	(minute)	text	01:00	01:00	01:00	:45	:30	:30	:15	:15	:45
Cool Time	(minute)	0	0	0	0	0	0	0	0	0	0
Vac On	(F-C)	1112-600	1112-600	1112-600	1112-600	0	0	1112-600	1112-600	1112-600	1112-600
Vac Off	(F-C)	see	1716-930	1600-870	1580-860	0	0	1645-896	1634-890	1390-754	1418-770
Vac Hold	(minute)	text	0	0	0	0	0	0	0	0	0
Vac Level	(max.if appl.)	max.	max.	max.	max.	0	0	max.	max.	max.	max.

Paste/Powder Opaque will exhibit a smooth and very shiny or glossy appearance when the firing is complete.

Dentine/Incisal firings will also exhibit a smooth and shiny or glossy appearance when the firing is complete.

Glazing cycles are notably lower in temperature than the previous firing cycles. If not satisfied with the final surface, re-texturize the surface and adjust the temperatures / hold time.

Add-On COR powder can be mixed 1/3 to 2/3 of the **Dentine/Incisal** porcelain that is being used. The **Add-On COR** powder acts as a flux which will lower the firing temperatures but not affect the translucency of the porcelain.

HeraCeram's Chroma as well as the **Value** of the porcelain will not burn out on multiple firings. Temperature and time change the final glaze appearance. The CTE will never change. These features make **HeraCeram** unique and user-friendly.

Steam Tears can easily be avoided by adjusting the dry times.

± **Pre-Opaque** should be applied as a thin wash. Dry according to firing chart (with a 180° F/100° C heat rate). Then, follow the alloy manufacturer's end temperatures for the degas cycle. **However, utilize vacuum from 1112° F/600° C to the end temperature including the hold time. On alloys with no hold times, hold for a minimum of 2 minutes at the specified end temperature under vacuum.**

† **Pre Heat** time applicable when using a furnace with a pre heat setting. If furnace does not have a pre heat cycle, add **pre heat time to dry time** during drying. For eg. In the case of paste/powder opaque, dry time would be 6:00 minutes + 3:00 minutes = 9:00 minutes.

* **Due to the fast rate-of-climb, HeraCeram needs a long hold time at end temperature to reach full maturity. A 1 minute hold time is standard for the dentine/incisal firing cycles. HeraCeram is fully matured when opal enamels display no milky appearance and their chroma and translucency levels match that of the Matrix Guide. // Bridges and refractory drying times should be increased to 8 minutes and the end temperature hold times should be lengthened to 1:30 minutes, while the end temperature may also need to be raised slightly to achieve the desired results of full maturity and shrinkage control.**