

TECHNIQUE GUIDE
FIRING PROCEDURES FOR
CREATION^(R) AND SURPRISE^(R) OPAQUES AND PORCELAINS

Creation and Surprise porcelains will produce superior aesthetics and exhibit excellent bonding and thermal expansion compatibility with a wide range of alloy compositions when each firing of the opaques and porcelains is completed using the correct firing times and temperatures. The firing chart on the back of this guide is accurate for most porcelain furnaces that are calibrated to their manufacturer's instructions. **The correct firing of these products can be verified, or necessary temperature adjustments can be made using the following procedure:**

1. **Calibrate the furnace using the procedure recommended by the manufacturer of the furnace. The type of porcelain furnace, electrical capacity, heat rate and vacuum levels all affect the firing temperatures.**
2. **Begin firing by using the recommended temperatures on the back of this guide.**
3. **If adjustments are necessary, establish the temperature of the opaque firings by using the appearance of the first dentin bake. The first dentin bake should appear slightly bumpy with a medium shine. The first opaque high temperature should be 105°F (60°C) higher than the first dentin high temperature.**
4. **When the appropriate temperatures of the first opaque layer are used it should produce a slight shine or gloss after firing.**
5. **The firing of the second opaque should be 55°F (30°C) lower than the established high temperature of the first opaque layer. The appropriate temperatures should produce an "egg shell" finish.**
6. **The second dentin high temperature should be 20°F (10°C) lower than the first dentin.**
7. **When performing subsequent dentin firings, reduce the high temperature 20°F (10°C) from the second dentin bake and hold one minute at the high temperature.**
8. **When using Creation glaze powder, the high temperature should be approximately 40°F (20°C) lower than the first dentin bake. When self/natural glazing, the high temperature should be no more than 15°F (10°C) higher than the first dentin bake.**
9. **When hold times are indicated, release vacuum and hold in air.**

SEE THE FIRING CHART ON THE BACK OF THIS GUIDE.

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CREATION^(R) AND SURPRISE^(R) FIRING PROCEDURES

	FURNACE ENTRY TIME ⁽⁴⁾	LOW TEMP.	VACUUMHEAT START TEMP.	RATE DEG/MIN	HIGH TEMP.	VACUUMHOLD RELEASE (AIR)	TIME
WOP CREAPAST ⁽¹⁾	6-8 MIN.	1110°F 600°C	1110°F 600°C	145°F 80°C	1740°F 950°C	1740°F 950°C	1 MIN.
1 ST POWDER / FULL OPAQUE ⁽²⁾	2-6 MIN.	1110°F 600°C	1110°F 600°C	145°F 80°C	1795°F 980°C	1795°F 980°C	1 MIN.
2 ND POWDER / FULL OPAQUE	2-6 MIN.	1110°F 600°C	1110°F 600°C	145°F 80°C	1740°F 950°C	1740°F 950°C	1 MIN.
1 ST PASTE OPAQUE ⁽²⁾	6-8 MIN.	1020°F 550°C	1020°F 550°C	145°F 80°C	1795°F 980°C	1795°F 980°C	1 MIN.
2 ND PASTE OPAQUE	6-8 MIN.	1020°F 550°C	1020°F 550°C	145°F 80°C	1740°F 950°C	1740°F 950°C	1 MIN.
1 ST AND 2 ND SHOULDER FIRING	2-6 MIN.	1110°F 600°C	1110°F 600°C	145°F 80°C	1740°F 950°C	1740°F 950°C	1 MIN.
1 ST DENTIN FIRING	4-8 MIN.	1075°F 580°C	1075°F 580°C	100°F 55°C	1690°F 920°C	1690°F 920°C	1 MIN.
2 ND DENTIN FIRING	2-6 MIN.	1075°F 580°C	1075°F 580°C	100°F 55°C	1670°F 910°C	1670°F 910°C	1 MIN.
SELF GLAZE (Without glaze powder)	2 MIN.	1110°F 600°C	No Vacuum	100°F 55°C	1705°F 930°C	N/A	
GLAZE WITH GLAZE POWDER	2-6 MIN.	1110°F 600°C	No Vacuum	100°F 55°C	1650°F 900°C	N/A	
POST SOLDERING ⁽³⁾	2 MIN.	1110°F 600°C	No Vacuum	100°F 55°C	1560°F 850°C	N/A	

- (1) WOP Creapast replaces the first opaque firing of powder opaque or "regular" Creapast
- (2) Raise high temperature of 1st Opaque only by 36°F(20°C) when firing onto non-precious alloy.
- (3) The soldering investment patty should be as small as possible. Pre-dry in a burnout furnace for 20 minutes at 800°F (425°C). Then, transfer the case to the porcelain furnace. Once the soldering cycle has been completed, the soldered restoration must be removed immediately and cooled rapidly.
- (4) A minimum of six minutes furnace entry time must be used when the Universal Liquid or In Nova fluids are used.