

Firing Schedules

Bisque Firing Sculpture

Always fire sculptures slowly to minimize cracks from shrinking and drying. "Candling" sculptures at low heat in the beginning of firings can help dry out thicker areas and prevent exploding and blow outs. If possible, let works dry naturally for 5-7 days before firing. I suggest digital kilns for firing sculpture as they are easiest to control.

Checking Dryness

You can check pieces for dryness by holding your hand on them. It is safe to open kilns when they are at low heat and check your work. If you cannot hold your hand on a piece very long it means most of the water has left the clay and it can probably go ahead and fire the rest of the program. You can also check the kiln peeps using a mirror to see if it fogs up with steam, if so, your piece needs more time to dry. If this is the case, stop the program and add more time to the 180-degree segment. Remember water boils (and steam explodes work) at 220 degrees so make sure your kiln stays below this temperature when drying work.

Temperature Holds

90-180 degrees = Candling, holds depend on dryness of work, thickness, etc.

382 degrees = Burning off last of water/steam, paper or drywall begins to burn

750 degrees = Organic material burns out; chemical water burns out

1100 degrees = Quartz inversion, go slow to prevent cracking

Pyrometric Cones

Cones indicate what the effects of time and temperature have done inside the kiln (and to your clay). They are more accurate than a pyrometer, as a pyrometer is traditionally only used to indicate an increase or decrease in temperature. Always use visual cones or a cone pack in kilns to verify they reached the correct temperature. Digital kilns are great and usually reliable, but if they malfunction due to computer error the only way to know what temperature your work made it to is by pyrometric cones.

VERY Slow Bisque Program for Sculpture (3-5 days firing time)

Best for pieces that are put in the kiln leather hard or wet. The first segment is a force drying segment that helps get the piece to bone dry and varies based on how dry the piece is when it goes in the kiln. The second segment is candling and can vary based on piece dryness.

SEGMENTS	RAMP	TEMP	HOLD
1	50	90	8.00 hrs.- 24.00 hrs.
2	80	180	12.00 hrs. – 24.00 hrs.
3	100	382	2.00
4	100	750	2.00
5	150	1100	0.00
6	200	1830	0.00

Regular Bisque Program for Sculpture (1-2 days firing time)

Best for pieces that are already completely bone dry (5-7 days natural dry time). You can still vary the first candle segment depending on size of the work, if unsure 12 hours is a general fail safe for drying varying thickness.

SEGMENTS	RAMP	TEMP	HOLD
1	80	180	8.00 hrs. - 12.00 hrs.
2	100	382	2.00
3	100	750	2.00
4	150	1100	0.00
5	200	1830	0.00

Cone 5 Slow Cool Glaze Program (2 days firing time)

SEGMENTS	RAMP	TEMP	HOLD
1	150	1200	0.00
2	200	2000	0.00
3	150	2150	.15 (15 minutes)
4	500	2000	.15 (15 minutes)
5	125	1400	0.00