



Below are instructions for firing 12" dia. or less and 3/8" 96 COE glass. Please prepare to adjust the firing program as needed for your specific kiln, size of project, and type of glass. Add 20° to all 'top' temperatures for 90 COE glass.

These schedules focus on a slow ramp up and ramp down. The life of the mold is prolonged by gradual changes in temperature. This guide will also protect your glass from bubbles and devitrification. Please refrain from opening your kiln until the temperature is below 100 F.

Full Fusing Kiln Casting		With using heat and time, merging two or more layers of glass in any size or shape to form one solid smooth piece.					
	Segment	1	2	3	4	5	6
	Rate (F/HR)	300	200	400	9999*	150	300
	Temp (°F)	1150	1370	1450-1480	950	800	100
	Hold Time (Hr.Min)	00.30	00.20	00.20	00.60	00.10	00.00

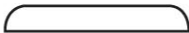
Contour Fusing		Using a lower temperature than a Full Fuse; to conjoin layers of glass enough so that the individual characteristics of the glass pieces remain and are smooth at the edges.				
	Segment	1	2	3	4	5
	Rate (F/HR)	400	400	850	9999*	400
	Temp (°F)	1000	1150	1375-1400	950	100
	Hold Time (Hr.Min)	00.20	00.15	00.15	00.60	00.00

Tack Fusing		Using a lower temperature than a Contour Fuse; to conjoin layers of glass enough so that the individual characteristics of the glass piece remain.				
	Segment	1	2	3	4	5
	Rate (F/HR)	300	200	9999*	150	300
	Temp (°F)	1150	1325-1370	950	800	100
	Hold Time (Hr.Min)	00.30	00.20	00.60	00.10	00.00

Slumping		Heating glass and shaping it into or over a mold.					
	Segment	1	2	3	4	5	6
	Rate (F/HR)	150	300	150	400	150	300
	Temp (°F)	300	1100	1225-1250	950	800	100
	Hold Time (Hr.Min)	00.15	00.30	00.15	00.60	00.10	00.00

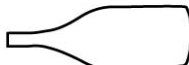
Deep Slump		Heating glass into a deep or deatiled mold - requiring a little more heat and hold time.					
	Segment	1	2	3	4	5	6
	Rate (F/HR)	150	300	150	400	150	300
	Temp (°F)	300	1150	1340	950	800	100
	Hold Time (Hr.Min)	00.15	00.30	00.40	00.60	00.10	00.00

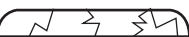
Draping		Conforming glass to a shape by bending it over the backside of a mold with heat, gravity, and time. In most cases the mold is stainless steel because of its coefficient of expansion with glass.					
	Segment	1	2	3	4	5	6
	Rate (F/HR)	150	300	150	400	150	300
	Temp (°F)	300	1100	1200	950	800	100
	Hold Time (Hr.Min)	00.15	00.20	00.15	00.60	00.10	00.00

Fire Polishing 	Heating glass to the point where the edges are round and the glass has a shiny appearance.				
	Segment	1	2	3	4
	Rate (F/HR)	300	9999*	9999*	400
	Temp (°F)	1150	1300	950	100
	Hold Time (Hr.Min)	00.40	00.10	00.90	00.00

Pot Melt 	Glass is placed into a pot with a hole in the bottom & melted at high temperature so that the molted glass runs out of the hole making patterns. (See tutorial at www.Slumpys.com)					
	Segment	1	2	3	4	5
	Rate (F/HR)	300	400	9999*	9999*	200
	Temp (°F)	1000	1700	1500	960	100
	Hold Time (Hr.Min)	00.20	00.60	00.45	00.60	00.00

Bubble Squeeze 	Used to help eliminate bubbles from forming these pieces will take longer to heat up allowing the air to escape.								
	Segment	1	2	3	4	5	6	7	8
	Rate (F/HR)	300	300	150	600	9999*	90	120	300
	Temp (°F)	1000	1150	1250	1450-1480	1000	960	750	100
	Hold Time (Hr.Min)	00.25	00.15	00.25	00.20	00.60	00.60	00.10	00.00

Wine Bottle Slumping 	Melting a recycled bottle at high temperature to form a flattened surface.					
	Segment	1	2	3	4	5
	Rate (F/HR)	500	250	9999*	9999*	180
	Temp (°F)	1100	1300	1475	1000	800
	Hold Time (Hr.Min)	00.10	00.30	00.10	00.60	00.60

Crackle Technique 	Frit is added to fiber paper and worked in a way that it creates a crackle technique once fired. The frit and fiber paper are then sandwiched between two layers of glass					
	Segment	1	2	3	4	5
	Rate (F/HR)	250	150	250	9999*	150
	Temp (°F)	1100	1255	1355	950	700
	Hold Time (Hr.Min)	00.10	00.30	00.05	00.60	00.00

Slumpy's Ceramic Mold Care Instructions

• Upon receipt of your mold, check for any possible damages that may have occurred during shipping. If your mold is damaged during shipping, **notify Slumpy's within 5 days of delivery.**

• Clean your mold if debris is present or it will adhere to the glass during fusing or slumping.

• **Primer should be applied to the mold before slumping glass into the form.** Slumpy's carries a variety of mold primers. Be sure to carefully follow all manufacturer's instructions for applying, drying and curing the primer prior to slumping or fusing.

• Before firing, **make sure base of mold is not in contact with residual glass on kiln shelf.** If the base contacts glass during firing, the mold may fuse to the shelf and damage the mold and/or shelf. Also **check for an uneven shelf surface.** Uneven distribution may

cause tension within the mold and may weaken or cause the mold to break while in storage or during firing.

• **Avoid thermal shock** caused by subjecting mold to drastic changes in temperature over short periods of time. Avoid raising temperature of molds from ambient conditions to hot kiln environment too quickly. **Slumpy's recommends not opening the kiln prior to 100°F (37°C).**

• Store molds with care to prevent damage. **Store in a dry place. Avoid stacking molds.** Possible damage to mold and/or degradation to primer layers may occur. If stacking molds is necessary, take care to prevent possible damages by use of a barrier between molds. Allow mold to cool before storing.

• Clay slumping mold can fire up to 2000°F (1100°C).