



# Refiring previously fired work or large components: 1/8"-3/4" (3mm-19mm)

See 'Open Face Molds: Firing Deviation Factors' for common reasons for deviating from this table

## Firing Schedules (ramps are for 6" or larger open face firings on shelves)

Target temps >>	Heating						Annealing & Cooling						Minimum Total Time (hours)		
	Step 1		Step 2		Step 3 *		Step 4		Step 5		Step 6			Step 7	
	Ramp Rate (per hour)	Hold (minutes)	Ramp Rate (per hour)	Hold (minutes)	Ramp Rate (per hour)	Hold (minutes)	Ramp Rate (per hour)	Hold (minutes)	Ramp Rate (per hour)	Hold (minutes)	Ramp Rate (per hour)	Hold (minutes)		Ramp Rate (per hour)	Hold (minutes)
300° F 149° C			1000° F 538° C		To Desired Peak Temp (see Peak Temp Table)		960° F 516° C		800° F 427° C		600° F 316° C		100° F 38° C		
Maximum Thickness															
1/8"	250° F	5	250° F	10	500° F	Per Peak Temp Table	AFAP**	30	200° F	0	300° F	0	400° F	0	8.9
3 mm	139° C		139° C		278° C					111° C		166° C		222° C	
1/4"	200° F	10	200° F	30	400° F	Per Peak Temp Table	AFAP	60	170° F	0	270° F	0	370° F	0	11.3
6 mm	111° C		111° C		222° C					94° C		150° C		206° C	
3/8"	160° F	15	160° F	50	325° F	Per Peak Temp Table	AFAP	90	135° F	0	235° F	0	335° F	0	14.2
9 mm	89° C		89° C		181° C					75° C		131° C		186° F	
1/2"	120° F	20	120° F	75	275° F	Per Peak Temp Table	AFAP	120	100° F	0	200° F	0	300° F	0	17.9
12 mm	67° C		67° C		153° C					56° C		111° C		166° C	
3/4"	80° F	30	80° F	85	225° F	Per Peak Temp Table	AFAP	180	50° F	0	100° F	0	200° F	0	27.1
19 mm	44° C		44° C		125° C					28° C		56° C		111° C	

\* For drop slumps cut Step 3 ramp rate in half  
\*\*AFAP means As Fast as Possible

### Basic Definition of firing steps

Step 1	Start heat up of prefired cold glass, shelf, mold, & kiln. Soak to distribute heat evenly
Step 2	Heat prefired glass components to softening point Hold to distribute the heat evenly
Step 3	Fire to desired peak temp Hold to desired finish
Step 4	Lower to upper annealing point, dropping quickly to minimize devit Hold to distribute the heat evenly
Step 5	Annealing ramp: cool to below the strain point Hold
Step 6	1st Cooling ramp Hold
Step 7	2nd Cooling ramp Open kiln when kiln interior 100° F/38° C, or room temperature.

### Peak Temperature Table - Open Face Molds

This guide is intended as a starting point. Variations of 25° F (13.9° C) or more are expected for specific needs & circumstances, such as kiln type, rate of ramp-up, soak length, thickness of work or mold, etc. All other factors being equal, System 96 glass will require a peak temperature about 25° F (13.9° C) below Fusion FX 90 COE (Bullseye compatible) glass.

Activity	Temp F	Temp C	hold time
Bending (uni-directional)	1100°	538°	1-20 mins
Shallow drop	1200°	649°	1-20 mins
Slumping with molds	1225°	663°	1-30 mins
Medium drop (sinks)	1250°	677°	1-20 mins
'Sugar' firing or Tack Fuse	1300°	704°	1-20 mins
Pâte de Verre	1325°	718°	1-30 mins
Fuse to stick	1350°-1375°	732°-745°	10-45 mins
Maximum Temperature if under 1/4" thickness			
Fuse flat with smooth edges	1420°-1450°	771°-788°	15-90 mins
Fill Bas-Relief molds - wavy edges	1450°-1475°	788°-802°	15-90 mins
Fill sharp mold details -irregular edges	1475°-1500°	802°-816°	90-300 mins