



Thick Firing Guidelines: 1 1/2" - 8" (38mm-203mm) work in open face molds

See 'Firing Deviation Factors' for common reasons for deviating from this table

For work 1 1/2" or more *and* over 24" (61 cm) in any direction Uroboros recommends using kilns with top, side and bottom heating.

Firing Schedules (ramps are for 6" or larger open face firings on shelves)														
	Heating					Annealing & Cooling								
	Step 1		Step 2			Step 3		Step 4		Step 5		Step 6		
Target temps >>	1250° F 677° C		To Desired Peak Temp (see Peak Temp Table)			960° F 516° C		775° F 413° C		600° F 316° C		100° F 38° C		
Maximum Thickness	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)	Minimum Total Time (hours)	
1.5"	150° F	150	150° F	Per Peak Temp Table	AFAP*	360	12° F	0	24° F	0	75° F	0	48	
38 mm	83° C	(2.5 hrs)	83° C			(6 hrs)	6.7° C	13° C	42° C	(2 days)				
2"	125° F	180	125° F	Per Peak Temp Table	AFAP	480	7° F	0	14° F	0	42° F	0	74	
51 mm	69° C	(3 hrs)	69° C			(8 hrs)	3.9° C	7.8° C	23° C	(3 days)				
3"	100° F	225	100° F	Per Peak Temp Table	AFAP	720	3° F	0	6° F	0	18° F	0	150	
76 mm	56° C	(3.8 hrs)	56° C			(12 hrs)	1.7° C	3.3° C	10° C	(6.3 days)				
4"	75° F	270	75° F	Per Peak Temp Table	AFAP	960	1.5° F	300	3° F	0	9° F	0	284	
102 mm	42° C	(4.5 hrs)	42° C			(16 hrs)	0.8° C	(5hrs)	1.7° C	5° C	(11.8 days)			
5 "	68° F	305	68° F	Per Peak Temp Table	AFAP	1200	1.2° F	375	2.4° F	60	7.2° F	0	386	
127 mm	38° C	(5.1hrs)	38° C			(20 hrs)	0.7° C	(6.3 hrs)	1.3° C	(1 hr)	4° C	(16.1 days)		
6"	60° F	340	60° F	Per Peak Temp Table	AFAP	1440	0.8° F	450	1.5° F	150	4.5° F	0	524	
152 mm	33° C	(5.7 hrs)	33° C			(24 hrs)	0.4° C	(7.5 hrs)	0.8° C	(2.5 hrs)	2.5° C	(21.9 days)		
7"	55° F	375	55° F	Per Peak Temp Table	AFAP	1680	0.6° F	525	1.2° F	225	3.4° F	0	677	
178 mm	31° C	(6.3 hrs)	31° C			(28 hrs)	0.3° C	(8.8 hrs)	0.7° C	(3.8 hrs)	1.9° C	(28.2 days)		
8"	50° F	405	50° F	Per Peak Temp Table	AFAP	1920	0.4° F	600	0.8° C	300	2.4° F	0	975	
203 mm	28° C	(6.8 hrs)	28° C			(32 hrs)	0.2° C	(10 hrs)	0.4° C	(5 hrs)	1.3° C	(40.6 days)		

**AFAP means
As Fast as Possible

Basic Definition of firing steps	
Step 1	Heat glass, small prefired components & shelf/mold materials above the softening point. Hold to distribute the heat evenly, and to allow air to escape (bubble management).
Step 2	Fire to desired peak temp Hold to desired finish
Step 3	Drop to upper annealing point Hold to distribute the heat evenly.
Step 4	Annealing ramp: cool to below the strain point Hold
Step 5	1st Cooling ramp Hold
Step 6	2nd Cooling ramp Open kiln when kiln interior is at 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
'Sugar' firing (sintering)	1300°	704°	1-20 mins
Pâte de Verre	1325°	718°	1-30 mins
Fuse to stick	1350°-1375°	732°-745°	10-45 mins
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