

Annealing Schedule for Spherical Moretti/Murano Glass “Turn On, Ramp Up and Work Program”

Annealing temperature range for Moretti or Murano Glass: 940-970 degrees Fahrenheit
General Rule of thumb: 30 minutes to one hour of soak time for each .5 (half) inch diameter of Moretti or Murano

Below is the computer language for the Jen-Ken Kiln with an AF3P Controller and a Flip Door

Turn on the kiln from IDLE press program button and select USER1 using the up Arrow key, then press the Program button. The down arrow button at this point is the program review button. This program will be entered in **USER1** and have 3 segments. **Ra1** means the first Rate per hour (FULL is located using the down arrow to 0 and press again to FULL), **oF1** means the first temperature to go to, and **Hd1** means the first Hold time in hours and minutes.

User 1	Ra1	Full- deg./hr	Full Power
	oF1	940 degrees	940 degrees F
	Hd 1	6 Hours	(Enter Longest Time Working)
	Ra 2	Full- deg./hr	Full Power
	oF2	940 degrees	
	Hd 2	30 min	30 minute Soak Prior to Ramp Down for half inch dia. beads
	Ra 3	600 deg./hr	Ramps down to 400 deg. The kiln cools down slowly to room temperature
	oF3	400 degrees	
	Hd 3	0 min	

Press Program Key Twice to Start

The program is now complete.

Note: At the end of the lampworking session if it is less than the 6 hour hold in Hold 1; one needs to use the “Skip Step” function to skip out of Hold 1 and into Hold 2. This will allow the last bead made to get 30 minutes of soak before the kiln ramps down.

Important: Do not leave a firing kiln unattended.

Annealing Schedules Compliments of FlameTree Glass Inc.
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Batch Annealing Program: From a “Cold Start”

General “Rule of Thumb” as to the annealing of the soft Soda-Lime glass known as the Moretti or Murano Glass: 30 minutes to 1 hour of soak time for each .1/2 inch diameter of Moretti or Murano glass.

Below is the computer language for the Jen-Ken Kiln with a AF3P Controller and a Flip Door

Turn on the kiln from IDLE press program button and select USER2 using the up Arrow key, then press the Program button. The down arrow button at this point is the program review button. **User 2:** This program will be entered in **USER2** and have 3 segments. **Ra1** means the first Rate per hour (FULL is located using the down arrow to 0 and press again to FULL), **oF1** means the first temperature to go to, and **Hd1** means the first Hold time in hours and minutes.

User 2	Ra1	850 deg./hr	(14.16 degrees F per minute)
	Temp1	940 degrees	940 degrees F
	Hold 1	6 Hours	(Enter Longest Time Working)
	Ra 2	Full - deg./hr	Full Power
	Temp	940 degrees	
	Hold 2	30 min	30 minute Soak Prior to Ramp Down for 1/2 inch dia. beads
	Ra 3	600 deg./hr	Ramps down to 400 degrees. The kiln cools down slowly to room temperature
	Temp 3	400 degrees	
	Hold 3	0 min	

Press Program Key Twice to Start

The program is now complete.

Note: At the end of the lampworking session if it is less than the 6 hours (user selected time) that is stored in Hold 1; one needs to use the “Skip Step” function to skip out of Hold 1 and into Hold 2. This will allow the last bead made to get 30 minutes of soak before the kiln ramps down.

Important: Do not leave a firing kiln unattended.

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Basic Borosilicate Annealing Program

Below is the computer language for the Jen-Ken Kiln with a AF3P Controller and a Flip Door

Turn on the kiln from IDLE press program button and select USER3 using the up Arrow key, then press the Program button. The down arrow button at this point is the program review button. **User 3:** This program will be entered in **USER3** and have 3 segments. **Ra1** means the first Rate per hour (FULL is located using the down arrow to 0 and press again to FULL), **oF1** means the first temperature to go to, and **Hd1** means the first Hold time in hours and minutes.

User 3	Ra1	FULL - deg./hr	Full Power Ramp Up
	Temp1	1050 degrees	The annealing temp range for Borosilicate glass is between 1050 and 1125 degrees F
	Hold 1	6 Hours	(Enter Longest Time Working)
	Ra 2	FULL - deg./hr	Full Power
	Temp	940 degrees	
	Hold 2	30 min	30 minute Soak Prior to Ramp Down for half inch dia. beads
	Ra 3	600 deg./hr	Ramps down to 400 degrees. The kiln cools down slowly to room temperature
	Temp 3	400 degrees	
	Hold 3	0 min	

Press Program Key Twice to Start.

The program is now complete.

Keep in mind that annealing Borosilicate Colors that “strike”...in which most of them do...these striking colors work on the process of nuclei formation.. that give rise to the size and number of crystals formed that in turn produces the resultant color that strikes out. So, for the Ruby family... you might want to anneal them early one in your annealing session, not keeping them in too long.. For over annealing the Boro-Ruby family causes them to over-strike and become livery in appearance. The cadmium based opaque colors are not bound by this law.. for they do not strike, yet one does not want to get them too hot, or be too “harsh on them” when working with them in one’s flame chemistry. So flame chemistry and annealing strike time are the secrets to proper color achievement in Borosilicate Glass. Have Fun! Keep Record Logs of Your Color Annealing Times, and the Flame Chemistry’s that you use in order to master the Boro Color palette. Record the “timing of your work”, and every nuance of it, in the flame chemistries used, annealing times, etc.

Note: At the end of the lampworking session if it is less than the 6 hour hold in Hold 1; one needs to use the “Skip Step” function to skip out of Hold 1 and into Hold 2. This will allow the last bead made to get 30 minutes of soak before the kiln ramps down.

Important: Do not leave a firing kiln unattended.

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