



AN IMPORTANT MESSAGE ABOUT FUSING SCHEDULES:

Any "generic" schedule is meant as a starting point. Your project, your kiln, and your desired results are all variables that will likely be reasons to adjust this schedule. Remember to fuse and anneal for the thickest part of the glass. By using this schedule you agree that the final responsibility is yours and yours alone and under no circumstances will FusedGlass.Org, it's partners or owners be held responsible for the results of using this schedule.

FIRING TYPE:	TACK FUSE / FIRE POLISH
THICKNESS:	1/2 inch / 12MM / 4 LAYERS
SEGMENTS:	8

START TEMP	75
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ASSUMPTIONS FOR THIS SCHEDULE

This schedule assumes that you are fusing 4 layers of single thickness (1/8 inch) Bullseye glass into a single 1/2 inch piece of glass. System 96 fusers should change the anneal hold temperature in segment 5 from 960 to 950.

This schedule makes assumptions regarding maximum heating and cooling rates of a glass kiln. All times are an approximation. **Kilns should NOT be fired unattended.**

Seg	Rate (°F / HR)	Target Temp.	Soak (Hold)	Estimated Segment Time	
1	50	900	15	16:45	The only goal for this segment (besides heating the glass) is to not thermal shock the pieces. If your glass is positioned especially close to your kiln's elements, if there are metal inclusions or iridized surfaces, or other characteristics that may interfere with even heating then you should consider slowing down this segment. The 15 minute hold at the end of the segment allows us to more completely burn off any glue, fiber paper binder or other organic material. If you are firing glass that has not been previously fired, you can probably speed up the initial heating.
2	500	1100	00	0:24	This segment brings us to the start of the "bubble squeeze" in segment 3. Glass is very unlikely to thermal shock at these temperatures so we speed up the heating. When fusing thicker pieces of glass it is prudent to continue heating at a slower rate.
3	100	1250	30	2:00	The slow heating from 1100 to 1250 -- and the 30 minute soak at the end of the segment -- allows the glass pieces to settle together, pushing out air. This will reduce the chance of bubbles later during the firing. Slowing this ramp, and/or extending the soak, can further minimize the likelihood of bubbles in the final piece.
4	9999	1350	01	0:06	Our final heating brings us to the process temperature - a fire polish or tack fuse at 1350° F where we soak the glass for just 1 minute. Process temperatures are highly kiln dependant. You should adjust this temperature and hold time according to your kiln and the desired results. When tack fusing/fire polishing three layers of glass, the edges round very slightly and the surface becomes glossy. It is important to minimize hold times in the range of 1350F° to 1450F° to avoid devitrification. This is the one case where it is better to adjust the temperature upwards than hold the process longer.
5	9999	960	120	2:58	With our fusing complete, we now cool as rapidly as possible to our anneal hold at 960 degrees. The 120 minute soak at this stage allows the temperature to equalize throughout the glass.
6	50	800	00	3:12	We now begin our controlled anneal cooling. The goal of this segment - and the next - is to allow our work to both contract and harden evenly throughout the glass while the glass returns to a completely solid state.
7	100	700	00	1:00	Complete our annealing.
8	200	100	00	4:48	The goal of this segment is to cool the glass to room temperature without thermal shocking the glass. As with segment 1, if your glass is positioned closely to the heating elements, if there are metal inclusions or iridized surfaces, or other characteristics that may interfere with even cooling then you should consider slowing down this segment.

Total Elapsed 1d 7h 12m