

## Basic Firing Schedules for Bullseye Glass 2020

Programming your own kiln can be unnecessarily daunting so we have developed these basic schedules to make the process as simple as possible, however as each kiln fires differently please use these schedules as a guide.

If you need advice using products from Warm Glass, please call us on **01934 863344** for **Free Technical Support**.

### Basic Full Fuse

For up to 50cm square with an even thickness of 6mm.

Runtime: 12hrs	Rate - Degrees/hr	Process Temperature	Hold – Soak
Segment 1	222°C/hr (400°F)	→ 677°C (1250°F)	30 min
Segment 2	333°C/hr (600°F)	→ 804°C (1480°F)	10 min
Segment 3	999°C/hr (999°F)	→ 482°C (900°F)	60 min
Segment 4	83°C/hr (150°F)	→ 371°C (700°F)	End

### Basic Slump\*

For non-complex slumping moulds.  
\*See our website for individual mould schedules.

Runtime: 12hrs	Rate - Degrees/hr	Process Temperature	Hold – Soak
Segment 1	167°C/hr (300°F)	→ 640°C (1184°F)	10 min (variable)
Segment 2	999°C/hr (999°F)	→ 482°C (900°F)	60 min
Segment 3	56°C/hr (100°F)	→ 371°C (700°F)	End

### Basic Tack / Contour

Use a Process Temp of **780°C** for a Contour Fuse.

Runtime: 12hrs	Rate - Degrees/hr	Process Temperature	Hold – Soak
Segment 1	222°C/hr (400°F)	→ 677°C (1250°F)	30 min
Segment 2	333°C/hr (600°F)	→ 760°C (1400°F)	10 min
Segment 3	999°C/hr (999°F)	→ 482°C (900°F)	120 min
Segment 4	83°C/hr (150°F)	→ 371°C (700°F)	End

### Super Bubble Squeeze

Use this firing to avoid unwanted bubbles.

Runtime: 12hrs	Rate - Degrees/hr	Process Temperature	Hold – Soak
Segment 1	222°C/hr (400°F)	→ 600°C (1112°F)	30 min
Segment 2	111°C/hr (200°F)	→ 677°C (1250°F)	60 min
Segment 3	333°C/hr (600°F)	→ 804°C (1480°F)	10 min
Segment 4	999°C/hr (999°F)	→ 482°C (900°F)	60 min
Segment 5	83°C/hr (150°F)	→ 371°C (700°F)	End

### Ideal Process Temperature (our test results)

Skutt Firebox 8 - Ideal Full Fuse	→ 804°C (1480°F)
Skutt Hotstart Pro - Ideal Full Fuse	→ 795°C (1463°F)
Skutt Firebox 14 - Ideal Full Fuse	→ 790°C (1454°F)
Paragon SC2 - Ideal Full Fuse	→ 804°C (1480°F)
Kilncare Hobbyfuser - Ideal Full Fuse	→ 795°C (1463°F)
Kilncare Cubfuser - Ideal Full Fuse	→ 804°C (1463°F)
Kilncare Profuser - Ideal Full Fuse	→ 800°C (1472°F)
Kilncare Profuser D - Ideal Full Fuse	→ 800°C (1472°F)
Nabertherm GF240 - Ideal Full Fuse	→ 810°C (1490°F)

If your kiln is not shown above, we recommend using the Warm Glass 'Kiln Test Kit' to calibrate your kiln.

### What is a Segment?

A segment is made up of three parts:

1. Temperature rise in degrees per hr
2. The temperature you want to reach
3. How long you want to stay there

A programme is made up of several segments in a row.

Segments can be identified in the following order.

1. Heat to Bubble Squeeze
2. Heat to Process Temperature
3. Cool to Annealing Hold
4. Cool to Room Temperature

### Recommended Adjustments

A slower heat to bubble squeeze is necessary for thick projects with inclusions which may need burning out, such as metals and decals.

Adjusting the process temperature or hold time will achieve different surface and edge finishes, especially in the Tack/Contour fuse.

Annealing times should be adjusted according to the thickness or complexity of the project. If you get cracks or bubbles, fire slower, lower, longer!

### Annealing and cooling schedule for thicker projects

Thickness	12mm	25mm	50mm
Anneal soak hr/min	2hr	4hr	8hr
First cool rate °C/hr	55°C/hr	15°C/hr	3.8°C/hr
First cool range	482-427°C	482-427°C	482-427°C
Second cool °C/hr	99°C/hr	27°C/hr	6.8°C/hr
Second cool range	427-371°C	427-371°C	427-371°C
Final cool °C/hr	330°C/hr	90°C/hr	22°C/hr
Final cool range	371-21°C	371-21°C	371-21°C
Minimum cool time	5 hrs	14 hrs	47 hrs

If your finished piece has significant variation of thickness please use the annealing schedule for twice the thickest section of your glass.