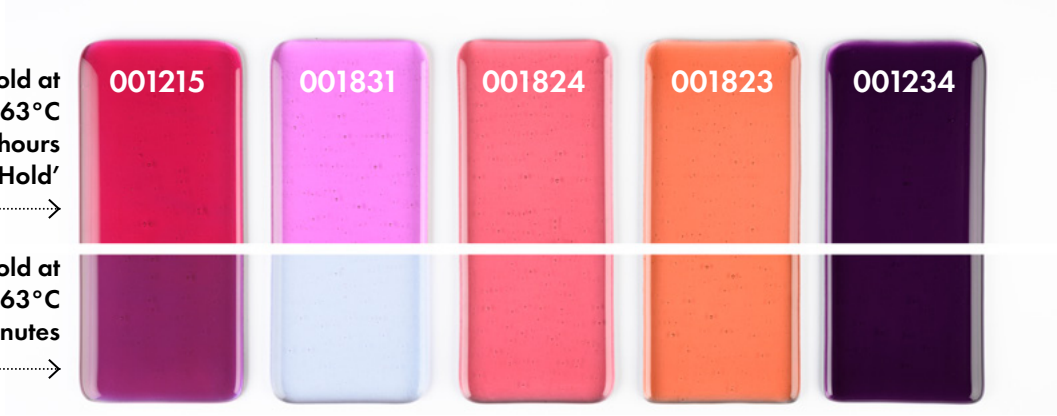
PRODUCT USE

Know Your Gold Hold—Best to Test



ABOVE: Fired samples of select gold-bearing glasses.
See Bullseyeglass.com for style names. Results may vary.

To consistently reach target color when firing select gold-bearing striking glasses, Bullseye advises a pre-rapid heat soak of 2 hours at 1225°F / 663°C on the way up to process temperature during the first firing. We call this the 'Gold Hold.' It applies to all forms (sheet, billet, frit, etc.) of certain gold-bearing glasses.

The production of gold-bearing glass styles involves numerous variables, making each melt unique. We've observed that these styles can be particularly sensitive during firing. To ensure consistent color development, we've developed a ***best to test*** list. It highlights colors that may not fully develop in kilns that run hotter than average.

Q: *Which glasses should have the Gold-Hold of 2 hours at 1225°F / 663°C on the way up to process temperature?*

A: Transparent striking pink, purple, and coral styles—standard and special production. Most of these styles strike readily with a Gold Hold in a range of kilns. As always, if you're not sure about a particular glass, make sure to get familiar with it in the *About Our Glass* section of our website.

This hold is only necessary for color development of select gold-bearing glasses in their first firing. If repeated, this hold could potentially have negative effects on some glass styles (i.e. cadmium-bearing).

For color-sensitive projects, we recommend—you guessed it—testing! For a test that best predicts colors results, stick to **1)** the schedule you plan to use, **2)** a small sample set up similarly to the one you're planning, and **3)** the same kiln you'll fire your actual project in. *See more about this idea in the Best-to-Test section.*

***** The initial rate of heat is not a critical factor in successfully striking gold-bearing glasses. Choose an initial rate of heat appropriate to the scale and design of the project that you are firing.

****** While we've provided a basic full-fuse process temperature, significant color development often takes place at lower temperatures. This is especially relevant when striking a single sheet or tack fusing.

Recommended Gold-Hold Schedule—Template

SEG	RATE	TEMP	HOLD
1	*	1225 °F / 663°C	2:00
2	600 °F / 333°C	1490 °F / 810°C**	0:10
3	AFAP†	900 °F / 482°C	‡

† As fast as possible.

‡ Remainder of cycle depends on the thickness of the piece. Consult the *Bullseye Annealing Chart for Thick Slabs*.

BEST-TO-TEST

We've found that some of the gold-bearing, striking-pink styles are extra-sensitive and do not strike well in kilns that fire hotter than average. These kilns essentially overshoot the 'gold hold' that is required for intended color development and may result in a color that is too blue.

Q: *Which pinks should I test before using them in a project?*

A: Transparent striking pinks that are light-to-medium saturation - each production date:

- Light Pink 001215
- Ruby Pink Tint 001831
- Ruby Red Tint 001824
- Burnt Scarlet Tint 001823
- Special Production transparent striking pink styles

Gold-Hold Test Firing Schedule

SEG	RATE	TEMP	HOLD
1	400 °F / 222°C	*	2:00
2	600 °F / 333°C	1460 °F / 793°C**	0:05
3	AFAP†	70 °F / 21°C	

* Temperatures for pre-rapid heat soak:
TEST 1—1225°F / 663°C
TEST 2—1200°F / 648°C

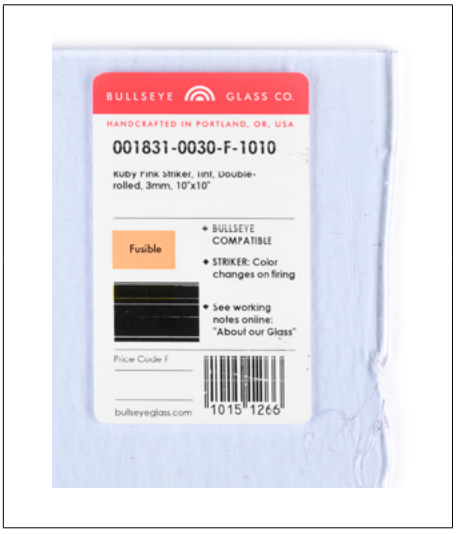
** If the gold hold in the first segment is successful, 1460°F / 793°C at a 0:05 hold time is enough heatwork to achieve color development in the glass. It does not need to be fired to 1490°F / 810°C —a process temperature we note and use for grading purposes when firing two layers of sheet glass. We get the same color at both of those process temperatures. If planning to fire to a tack fuse, try firing to that temperature and planned hold time. A range of process temperatures can develop proper color if the glass is heated correctly.

† As fast as possible. The glass does not need to be annealed to get the information about color. It's okay to let the kiln cool naturally or to vent to speed things along. Color development happens in the first two segments.

TEST PROCEDURE

1. To be a good test, this needs to be the first firing of the glass.
2. Cut a small piece of sheet glass (a rolled-edge works, too). Set it up to fire single layer/uncapped on a primed shelf or scrap of Thinfire.
3. Note the glass style, production date and kiln for your records.
4. Fire using the *Gold-Hold Test Firing Schedule* on this document. It is designed to be a short firing with a hold at 1225°F / 663°C.
5. Check your results. If color has not developed or is under-developed (usually too blue), repeat the test with another small, unfired piece from the same sheet and lower the gold-hold temperature to 1200°F / 648°C. Most often, this minor adjustment is enough to achieve proper color development.
6. Record your results for reference and make a note to store with the sheet glass.

UNFIRED SHEET
RUBY PINK TINT 001831-0030



FIRED RESULTS-TEST 1
RUBY PINK TINT 001831-0030
1225°F/663°C | 2 HOUR HOLD

FIRED RESULTS-TEST 2
RUBY PINK TINT 001831-0030
1200°F/648°C | 2 HOUR HOLD

POST TEST

Q: *What's next if I have a kiln that fires hot?*

A: We've found these extra-sensitive glass styles to be good indicators for discovering 'hot' kilns. If you find that your kiln fires relatively hot, you should adjust the pre-rapid heat soak temperature when using the glass you've tested. For 'hot' kilns, the adjustment is still effective for a bubble-squeeze and there is no need to add another segment to the firing schedule. Here's an example of a full-fuse firing schedule for firing two layers of 3 mm glass, with the adjustment. As for adjusting other parts of the firing schedule, that's up to you. If you have a good history of firing to certain temperatures for different effects and you like the results, there is no need to change anything else.

Modified Full Fuse—'Hot' Kiln Example for firing *two layers* of -0030 (6 mm)

SEG	RATE	TEMP	HOLD
1	400 °F / 222°C	1200 °F / 648°C	2:00
2	600 °F / 333°C	1490 °F / 810°C	0:10
3	AFAP	900 °F / 482°C	1:00
4	100 °F / 56°C	700 °F / 371°C	0:00
5	AFAP	70 °F / 21°C	0:00

OUR TESTING AND FORMS OF GLASS

We've done our testing with sheet glass. Billets are usually used in processes in which heating is gradual enough so that they properly develop within target color range. It stands to reason that Frit—which is crushed sheet glass—will not develop within target color range in a kiln that fires relatively hot— unless adjustments are made to the gold hold temperature.

IN SUMMARY

When working with gold-bearing, striking-pink glasses, mastering the 'Gold Hold' is key to achieving desired colors. Each melt is unique, and some glasses are extra-sensitive, requiring precise testing in kilns that may run hotter than average. To avoid surprises, a quick test using your specific schedule and kiln ensures optimal color development. Remember—color changes occur during the first firing and can't be corrected later, so it's worth the effort upfront. With the right approach, your pinks, corals, and purples will shine as intended. Test smart, fire with confidence, and enjoy brilliant results!

ADDITIONAL RESOURCES

About Our Glass

Gold Hold List

Heatwork and Cadmium-Bearing Glass

What to Expect from Bullseye Glass