# **Make It: Inline Plate**

#### GLASS

- $\cdot$  (1) tube of assorted 2 mm stringer
- · (2) 25.4 cm × 25.4 cm (10" × 10") pieces of 3 mm Clear Tekta (<u>001100-0380</u>)

Produces one  $20 \times 20 \text{ cm}$  (8"  $\times$  8") plate.

#### TOOLS

- · Basic glass cutting tools
- · Toyo Cutter (7010)
- · Square Slumper Mold A (8634)

#### **NON-GLASS ITEMS**

- GlasTac (8234)
- Bullseye Shelf Primer (8220) (not ThinFire or shelf paper)
- Butcher or kraft paper to use as a clean workspace

#### **OTHER HANDY ITEMS**

- · Ultra fine point Sharpie® pen
- Small cups or blocks to elevate the piece during the design phase
- · 120 grit diamond pad (7220)

# **COLDWORKING EQUIPMENT** (optional)

· Wet belt sander

#### RECOMMENDED READING

- 12 Ways to Improve Your Glass Cutting
- Glass Cleaning Basics
- TipSheet 7: Platemaking
- <u>Tips for Using Bullseye</u> <u>Slumping Molds</u>

## RECOMMENDED VIEWING FROM BULLSEYE VIDEOS

- Slumping Basics
- Working with Stringer
- Inline Plate Project
- Coldworking with the Wet Belt Sander

Articles and videos can be found at <u>bullseyeglass.com</u>.



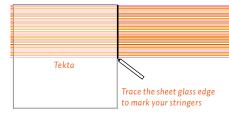
### **Prepare the Sheet Glass**

- 1. Cut two pieces of 3 mm Clear Tekta to  $20 \times 20$  cm  $(8'' \times 8'')$ .
- **2.** Clean one of them and trace its border with a pencil on a piece of butcher paper to serve as a template and clean workspace. Set the sheet glass aside.

#### **Prepare the stringer**

- **3.** Set out enough stringers to cover half of the 20 × 20 cm (8" × 8") template you have drawn. Each stringer will yield two lengths for the project with a little bit left over. Don't worry about color placement just yet.
- 4. Measure the stringer: To create a design with a uniform edge, it helps to have stringers with flush cut ends. Start by aligning the stringers so that about (¾") hangs over one edge of the template—about (9½") will overhang the opposite side. If your stringers already have nicely cut ends, set the "clean" ends flush with one side of the template. Using the template as a guide, place a clean piece of the 20 × 20 cm (8" × 8") Tekta on top of the stringers. Next, run an ultra fine point Sharpie® pen along the edge of the sheet glass, leaving a cutting mark on each stringer. Before marking the stringers on the other side of the Tekta, move the Tekta over ever so slightly to cover the first row of marks. This will produce a more accurate measurement. Remove the Tekta sheet. Now your stringers are ready to cut. **Note:** If using stringers that already have one nicely cut end, set the "clean" ends flush with one side of the template instead of cutting them.
- **5.** Cut the stringers, using the marks as a guide. A disc nipper like the Neo GC will work well.
- 7. Align the remaining stringer pieces to one side of the template, then repeat measuring and cutting (steps 4 & 5).

Set materials on your paper template from Step 1



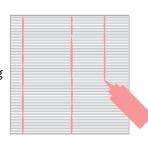
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### **Create the Design (Set the Stripes)**

- 7. Set a single piece of clean Tekta (rough side up) on small inverted cups or blocks—to elevate it from the work surface. The slight elevation will make handling and moving the piece much easier.
- **8.** Place a drop of GlasTac at each corner and set down a few stringers to determine the ends.
- 9. Fill in with the remainder of the stringers, arranging them to your liking. You'll know the surface is covered when you can't add a stringer without another one falling off. Keep an eye out for stringers that might need to be recut. Adjust stringers to make them flush with the edge of the sheet glass.
- **10.** Once your design is complete and all of the stringers are in place, draw at least three beads of GlasTac across the stringers, making contact with each one. While the

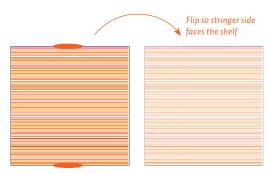
GlasTac is still wet, gently press down on the stringer layer to make sure it is only a single stringer deep and that all of the stringers are touching the sheet glass underneath. It is important for Glastac to flow between the stringers to the sheet glass.



**11.** Allow the GlasTac to dry completely. Minimally, it should be left to dry overnight. This is very important, as you will see when you get to the next step.

## **Assemble the Layers & Fuse**

12. Once the piece is dry, turn it over and transfer it to a primed kiln shelf—a very delicate maneuver. Holding the edges that run parallel to the stringers, gently pick the piece up, turn it over, and place it with the stringer layer touching the shelf. This is best done in close proximity to the firing surface, spending minimal time holding the inverted piece. If the GlasTac is not set and dry, the stringers will slide off. Be gentle in both handling and placing the piece, leaving the primed shelf surface even and free of scratches. (Keep in mind that with this design, the shelf side becomes the front of the piece.)



Grasp the piece on the edges that run parallel to the stringers

**13.** Cap the piece with the other 20 × 20 cm (8" × 8") sheet of Tekta. The Tekta should be clean and placed with the smoother side facing up (to create a smooth-to-rough interface with the base sheet).



**14.** Now you are ready to program the kiln and fire the piece. (See Fuse Firing schedule below.)

### **Slump Firing**

- **15.** Prior to slumping, address any sharp points or edges with a wet diamond pad or wet belt sander to remove material from the edges for a cleaner-looking edge.
- **16.** Clean the piece thoroughly and load it onto Mold 8634 with the shelf-side texture facing up. Elevate the mold to promote even heating and cooling.
- **17.** Now you are ready to program the kiln and slump the piece. (See Slump Firing schedule below.)

#### **Notes for Future Projects**

Consider using a single piece of 6 mm Clear (<u>001100-0680</u>) instead of 2 layers of 3 mm sheet glass for fewer bubbles and greater clarity.

## **Suggested Firing Schedules**

| Fuse Firing |               |                |      |  |
|-------------|---------------|----------------|------|--|
|             | RATE*         | TEMPERATURE    | HOLD |  |
| 1           | 400°F (222°C) | 1225°F (663°C) | :45  |  |
| 2           | 600°F (333°C) | 1490°F (810°C) | :10  |  |
| 3           | AFAP†         | 900°F (482°C)  | 1:00 |  |
| 4           | 100°F (56°C)  | 700°F (371°C)  | :01  |  |
| 5           | AFAP†         | 70°F (21°C)    | :00  |  |

| Slump Firing—mold (8634) |               |                |      |  |
|--------------------------|---------------|----------------|------|--|
|                          | RATE*         | TEMPERATURE    | HOLD |  |
| 1                        | 300°F (167°C) | 1225°F (663°C) | :05  |  |
| 2                        | AFAP†         | 900°F (482°C)  | 1:00 |  |
| 3                        | 100°F (56°C)  | 700°F (371°C)  | :01  |  |
| 4                        | AFAP†         | 70°F (21°C)    | :00  |  |

<sup>\*</sup> Degrees per hour

 $<sup>\</sup>dagger$  As fast as possible. Allow kiln to cool at its natural rate with the door closed.