

Instructions

Fusing with Fusible Shapes

Save time and minimize glass waste with Fuseworks Fusible Shapes. Made with Fuseworks 90 COE glass, shapes are perfect for all types of fusing projects!

Step 1 – Preparation

1. Cut a square of kiln paper to fit the base of the Fuseworks™ Microwave Kiln. Place paper on the kiln base. Kiln paper is only good for one firing.
2. Layer Fusible Shapes on top of kiln paper (FIG. 1). Leave at least a 5/8" border around the Fusible Shapes and the edge of the kiln paper. Do not allow the Fusible Shapes to touch the sides of the kiln wall or the base of the kiln. Fusible Shapes allowed to touch the kiln base or walls will stick and can cause irreparable damage to the kiln during the fusing process.



FIG. 1

Step 2 – Embellishing

1. Embellish with glass frit, stringer, milliefiori, confetti or dichroic bits and pieces.

Step 3 – Firing Glass

1. Carefully place kiln base with Fusible Shapes in the center of microwave oven. Place lid on top of the base (FIG. 2). **WARNING:** Never leave microwave or kiln unattended during the firing process.
2. Set temperature for the microwave on high. Choose times for firing from the chart below. **PLEASE NOTE:** Every microwave oven and kiln will vary. The ranges found in the chart below are average ranges. Actual times will vary depending upon your microwave oven, the thickness of Fusible Shapes, as well as your desired results.



FIG. 2

WATTS	MINUTES	GLASS THICKNESS
800	3 to 4	1/4" (2 - 1/8" pcs.)
1100	2 to 3 1/2	1/4" (2 - 1/8" pcs.)
1200	2 to 3 1/2	1/4" (2 - 1/8" pcs.)



FIG. 3

HOT TIP! Take good notes! Recording firing times and temperatures for projects are important to keep. This information will help repeat good projects and prevent bad ones.

3. When microwave time has expired, use heat resistant gloves or Hot Mitts to carefully open the lid (FIG. 3). If your piece is not fused to your liking, return kiln lid and microwave at 30 second intervals until piece is fused. Do not leave the lid off the kiln for extended periods of time during this stage. Never touch the glass. Do not heat for more than 6 minutes.

HOT TIP! HOT glass looks like COLD glass, BE CAREFUL!

4. A good fuse indicator is to watch for a red glow to appear in the opening at the top of the kiln. When it changes to a yellow/orange, this will indicate the Fusible Shapes have entered a full fuse stage.



FIG. 4

At this stage Fusible Shapes edges will become rounded. When you see more of a yellow glow, the piece should be fully fused.

HOT TIP! *To see the glow more readily, cover the microwave light by cutting a small piece of cardboard to cover the light source and tape into place.*

Step 4 – After Firing

1. When desired results have been achieved, using heat resistant gloves, remove the whole kiln from the microwave oven (FIG. 2). Set on a heat resistant pad. The area around the Fuseworks™ Microwave Kiln should be free of clutter and in a safe location. Do NOT allow to cool under an overhead cabinet. Never block the opening at the top of the Fuseworks™ Microwave Kiln.
2. Do not remove lid at this time. Removing lid will cause thermal shock, resulting in breakage.
3. Allow your fused piece to anneal for a minimum of 30 minutes without removing kiln lid; time could be longer depending on the thickness of the project. You will be tempted to open the lid and look at your piece but do not, as this can be dangerous and will result in cracked projects.
4. Do not reuse the kiln until it has completely cooled for at least 30 minutes. Continuous use without cooling can cause damage to the kiln.
5. Your fused project must cool completely before removing from the kiln. This may take up to 40-50 minutes. Once cooled, you can remove the fiber paper from the back of the fused project by rubbing the surface with a wet paper towel or cleaning the project under warm water (FIG. 4).

DO NOT FUSE GLASS WITH VARYING COE (COEFFICIENT OF EXPANSION).

WARNING: Glass inside the microwave kiln can reach temperatures of 1400°F – 1600° F. Glass at this temperature is capable of causing serious bodily harm and property damage. Handle with extreme caution and care. Not recommended for children. **CAUTION:** Fusible glass edges can be sharp, handle with care. Wear safety eye protection when using glass crafting tools and accessories.