

Drop Ring Basics

Creative Paradise Inc.

Drop Rings are designed to allow glass to drop through their open centers onto a flat surface, creating unique vessels of varying heights. Projects involving drop rings are fascinating and fun, but involve many variables.

In this basic guide we'll walk you through some of those variables, as well as explain some of the challenges that can come along with working with drop rings. We feel the spectacular results are well worth the effort!



Example 1:
GM12 Mini Round

Choosing Glass:

The size of your chosen drop ring and the desired height of your finished piece are the main factors to consider when determining what size and thickness of glass to use.

To determine the size of your starting sheet of glass, take the outer dimension(s) of your drop ring and add 0.25" to each.

To determine the thickness, generally one standard sheet of glass (3mm thick) should be added for every 2" of height desired. Regardless of height, we recommend **starting with at least two layers** to make sure there is enough glass to drop fully.

Using the right thickness of glass is vital with drop rings. If the glass is too thin it can stretch to the point of tearing during firing, and holes can appear in the sides of your project.

For the most control during the dropping process, we suggest pre-fusing the glass before dropping.

[Click here to view our full selection of Drop Rings.](#)

Foot Drapes, also viewable at that link, can be used along with suitable Drop Rings to create footed vessels such as **Example 2**. For more on that process, [please refer to our Basic Tutorial found here.](#)



Example 2:
GM87 Plate Ring and GM 90 Foot

Firing Schedules:

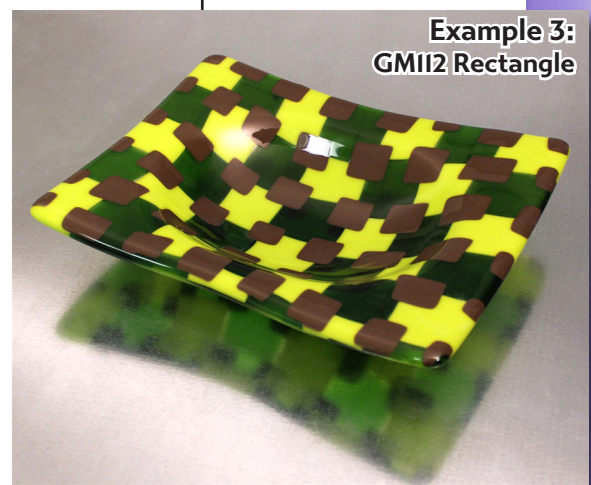
As always, our schedules are all suggestions! You know your kiln best, so adjust them as you see fit. If you'd like tips on getting to know your kiln better, please [check out our Firing Notes by clicking here.](#)

Since there is significant variation in the thicknesses of glass used in drop ring projects, firing schedules will vary. For thicker glass and taller drop distances, increase the hold time at the top temperature. The schedules in the example project on **Page 2** are for three standard layers (9mm) of glass.

One of the trickier parts of the drop ring process is monitoring it. If your kiln has peepholes or vent holes we recommend looking through them during the top temperature segment of your schedule to ensure the glass is dropping correctly. You're primarily checking to make sure the glass hasn't dropped too quickly and pooled at the bottom.

If you're unable to look into your kiln, don't worry! You can do drop ring projects without doing so. It will simply be a bit little trickier to determine what went wrong if a problem does occur.

Example 3:
GM112 Rectangle



Refer to **Page 2** for an example project using the GM14 Small Square Drop Ring!

Example Project: Small Square Vase

Materials:

- [GMI4 5m Square Drop Ring](#)
- COE96 Glass (See Right)
- Suitable Glass Separator/ZYP
- Glass Cutting Tools
- Kiln Shelf Paper
- Three 5.5" Kiln Posts

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Suggested Glass:

- Sheet Glass:
 - Double Thick Clear
 - Color or Pattern of Choice*

* Streaked or marbled glass can be particularly striking with drop rings for the interesting patterns they can create while dropping.



Pre-Fusing:

Cut a 6" square of Double Thick Clear (or two 6" squares of Standard Clear) and a 5" square of your color or pattern of choice.

Place a 6.5" square sheet of kiln shelf paper atop a level shelf in the kiln. Place the 6" square of Clear on top and center the 5" square of color atop it. Fire using the suggested schedule in **Table 1** or your own preferred full fuse.

Table 1: Full Fuse *

Seg.	Rate	Temp (°F)	Hold
1	300	1150	45
2	150	1300	20
3	400	1460	10
4	9999	950**	60

Table 2: Drop *

Seg.	Rate	Temp (°F)	Hold
1	350	1100	10
2	200	1280	10
3	9999	1325	20
4	9999	950**	60
5	100	800	10
6	100	600	00

*Before firing, it's important to know your kiln to see if you need to adjust our suggested schedules for your use. For tips on how to do that, [please click here to see our Important Firing Notes!](#)

**If using COE90, adjust these to 900°F

Dropping:

Prepare the drop ring with suitable separator. If using a spray-on separator, be sure to apply in a well-ventilated area while wearing a mask.

Place a 6" square of kiln shelf paper on a level shelf in the kiln. Place three 5.5" kiln posts on the paper and balance the drop ring on top of them. To align the drop ring, look down through the top of the drop ring through the opening. You shouldn't be able to see the posts at all but you should be able to see the paper. If you can see a post, it's possible the glass could catch on it while dropping, so adjust the drop ring until you can't.

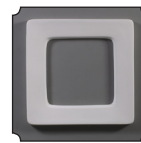
Once the kiln shelf paper, posts, and mold are in place, check to make sure they are level. Place a suitably sized spare sheet of unfused glass (around 6" x 6" for this example) on top of the drop ring. Check it either using a level or by gently pressing around the glass to see if it wobbles. If it moves, use small folded pieces of kiln shelf paper to prop up any uneven posts. **It's important that everything is level**, as if it isn't the glass can lean to one side and drop unevenly.

When everything is level, remove the spare sheet. Center the pre-fused square atop the mold in its place.

Fire using the suggested schedule in **Table 2**, adjusted as needed for your kiln. If your kiln allows it, quickly peek in during **Segment 3** a bit after the glass has hit the top temperature to ensure it is dropping correctly. Ideally it should be dropping to just touch the kiln shelf paper and beginning to pool to create the bottom of the vase.

Featured Mold:

[GMI4 5m Square Drop Ring](#)



Mold: 6" L x 6" W
Opening: 4" L x 4" W

Refer to the next half-page for some troubleshooting tips!

Troubleshooting:

Drop rings feature some unique possible problems in their usage. Here are a few common ones along with their potential solutions:

Holes in the sides of the final piece?

Either the glass you're starting with isn't thick enough, or you may be holding too long at the drop temperature. Try adding a layer or shortening the hold.

Too much glass pooling at the bottom?

You could be holding too long at the drop temperature segment.

Glass not dropping all the way to the kiln shelf?

Try holding a bit longer at the drop temperature.

Ending up with a puddle instead of a vase?

Try shortening the hold on your drop temperature segment.

As you can see, most of the potential issues that arise with drop rings come down to figuring out what firing schedule works best for you!

Still having problems? Email us!
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