

Modeling Glass Snowflake Ornaments

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This is a versatile project that can be modified to make pretty much any shape using cookie cutters. You're not just limited to snowflakes! You can also make your own templates and cut out shapes by hand if you want to make something that you can't find a cookie cutter for. A list of the supplies used for this project is at the end of the article.

Make two 4-oz. batches of Modeling Glass using the recipe on the instruction sheet. One batch with Bullseye Opaque White Opal powder #0013, the other with Deep Cobalt Blue Opal powder #0147 (other option is Egyptian Blue Opal #0164). It's better to have the mixture on the drier side, as if it's too wet the cookie cutter won't make clean edges.

Using a silicone baking mat as the base, cut a chunk of white and one of blue, about 1/4 of the ball. Blend the two colors together with a palette knife until marbled. Cut that chunk in half, add some more white, and marble further to get a graduated color. Combine the marbled chunks with some solid white and blue, then roll the MG flat to 3mm thick using plastic wrap over the top. I use two strips of scrap Tekta as thickness guides for the rolling pin so the result is consistent. Once the MG has been rolled out, remove the plastic wrap and press the cookie cutter firmly into the MG,



The marbled slab of MG ready for cutting out with the large snowflake cutter.

making sure to get good contact with the mat underneath. Wriggle the cutter slightly without lifting it away, to create good separation lines. Cut several shapes if there is room on your MG slab. Lift the cookie cutter and set aside. If you are adding internal cutout shapes, do those now as well. Be careful not to place your internal cutouts too close to the outer edge; a narrow channel in the MG can shrink and split during firing, so leave at least 3/16" of material.

Using a palette knife or ceramic cleanup tool, remove the surplus MG from around the cut shapes and set it aside. This material can be re-rolled to cut out more shapes. If you are cleaning up a snowflake with internal cutouts, carefully lift the residue out of the interior spaces. This can be tricky,



This is the completed project, measuring about 5.5" w x 14" h. You can add high-temp loops to multiple ornaments to create a longer chain.

and the material may lift out in pieces. The important thing is to try not to damage the inner edges of the shapes. Keep in mind that if you do nick the snowflake, you can always patch and sand the piece to fix it after the snowflake is dry. If you can manage to lift the interior shapes out in one piece, set them aside to use as decorative elements on the snowflake.

If you want to insert a wire for hanging, this is the time. I use high-temp wire that has been bent into a u-shape. Take a small square of matboard



Snowflake with cutouts removed.

and lay it next to the snowflake where you want to put the hanger. This will serve as a guide so you can slide the wire hanger into the middle of the MG snowflake. Lay the wire flat on the matboard and slip it gently into the tip of the snowflake. Push it pretty far in, because when the MG shrinks during firing, more of the loop will be exposed. If you want to combine multiple snowflake elements into a chain, add more loops as desired.

Put the mat with the snowflakes and accent pieces on a cookie sheet and dry at 200 degrees F for about a half hour. I use my household oven for this, but a kiln works fine too.

Take the pieces out and check them. If they lift away from the baking sheet easily without flexing and feel like light, hard cookies, the pieces are dry. If you turn the snowflake over and it has a darker area running through the thickest portions, it is not yet dry. Put it back into the oven or kiln for an additional 10-15 minutes and check again. Repeat until dry.

At this point you can carefully sand the edges of the shapes, as well as using a ceramic cleanup tool or Xacto knife to refine the edges. I use 150 or 220 grit paper for this. The snowflakes will be somewhat brittle, but if



Use a piece of board to guide the high-temp wire loop into the center of the snowflake's thickness.

you snap a piece off, don't panic! You can reattach it easily (more on this later). Those little cutouts that you saved from making the snowflakes can now be added back onto the main snowflake as additional dimension and decoration. This gives a very nice result when the snowflake has been contoured. To attach the piece to the base snowflake, use a small brush to moisten the back of the decorative piece. Then use a palette knife to spread a thin layer of moistened MG onto the piece. This will ensure good adhesion to the base. Press the piece gently into position on the snowflake.



Spread a thin layer of moist MG across the back of decorative pieces you want to add to the main snowflake. This is also how you repair breaks.

This is the point at which you can reattach a broken piece or patch any other irregularities or nicks. For a piece that has broken off, slightly moisten the dry broken edge and then spread a bit of wet MG between the two broken edges and press gently together. If some of the MG squeezes out at the repair seam, it can be removed after the piece has been re-dried. If you're filling a nick, just spread some wet MG into the nick, no need to moisten the base.



Use a fine brush to paint mica elements on the dried shapes. I used both silver and gold mica on the snowflakes.

Once you have added all the decorative elements, put the whole snowflake back into the oven for an additional 5-10 minutes to dry it again. Any time you moisten a piece of MG, it will become soft and easy to break until it has been re-dried. After you do final touch-ups to the

edges and any repairs, the snowflake is ready for the application of mica decoration. Take the mica color of your choice and combine it with some clear powder at a ratio of about 60% powder and 40% mica. Since mica sticks to glass but doesn't stick to itself, you need the powder to help the mica adhere to the snowflake. Add some MG Liquid Medium to the mica/powder blend until you have a consistency that can be applied with a paintbrush but isn't runny. The mica tends to settle out of the medium, so be sure to stir it well each time before using.

Dry MG is absorbent and will grab the paint, so plan out where you want to put your decorations before you begin. If you mess up, you can wait until the mica paint is dry, and then use a sharp tool to scrape it off the surface of the MG and redo it. Using a fine brush, you can get very nice sharp details. After firing, it's not unusual for a little of the mica to come off the surface, but most of it will be permanent. Once fired, the mica keeps its metallic sheen, which is a very nice effect. I used both gold and silver mica in this project, and they worked great. Some other micas with added colors like red, green, and blue tend to lose vibrancy when fired.

When the snowflakes are dry, you can add a little additional bling with clear or colored fine frit sprinkled over the surface, paint on decorative elements using enamels, etc.

FIRING SCHEDULE

Here's the schedule for making glossy, contour-fired snowflakes (this is for a Paragon Benchtop 16 kiln; your schedule may need to be adjusted depending on how your kiln fires). The snowflakes will shrink about 15% during firing. The contour fuse schedule preserves the dimensionality of the shapes that have been attached to the main body of the snowflake, yet is still hot enough to fully mature the colors. White needs this amount of heat work to be bright, otherwise it will have a grey cast. If your piece doesn't end up glossy and bright, increase the temperature and re-fire.

300/1000/:05
600/1380/:10
999/900/:60
150/700/:00

TOOLS USED FOR THIS PROJECT

Large 7.5" snowflake cookie cutter https://smile.amazon.com/gp/product/B07FTTM7GB/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

Small 5" snowflake cookie cutter https://smile.amazon.com/gp/product/B0001XXEY0/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1

Small star cookie cutter (available many places)

Assorted mica powders from Delphi
<https://www.delphiglass.com/glass-enamels-paints/mica-powders/mica-powder-assortment>

Ceramic cleaning tools
https://smile.amazon.com/Fashion-Sculpting-Double-Sided-Pottery-Sculpture/dp/B07C17GW7N/ref=sr_1_5?crid=1HCUMBO79DDU2&keywords=ceramic%2Bcleaning%2Btools&qid=1668966683&prefix=cera mic%2Bclean%2Caps%2C134&sr=8-5&th=1



Painting gold mica onto the dry MG. The material is very absorbent, so the mica stays exactly where it's put.

Silicone baking mat (available on Amazon)
Palette knife
Rolling pin
Cookie sheet
Plastic wrap
Small piece of matboard or chipboard
Sandpaper 150-220 grit
Fine brush for painting details
High-temp wire
Small jump-rings

Have fun and experiment with mixing different shapes, painting with enamels, combining multiple colors of powders, you are only limited by your imagination!

This free project tutorial is courtesy of Lois Manno,
Glass Bird Studios
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