

Groovin' the Big Batch Swirl Intensive Workshop

General Instructions: 10 Soapmakers have been given a badge with a number from 1 – 10 and will be at their stations. The remaining soapmakers will draw their badges from a box at the head of the table. Please go to the station corresponding to the number on your badge. Every badge has a letter A,B or C beside the number. This will help divide the duties equally among the group.

After everyone has found their station, we will begin a power-point presentation outlining big batch soapmaking, followed by big batch swirling.

After the power point presentation, teams 1 – 5 will be assigned one of the 5 swirls discussed in the power point presentation and outlined in the directions below. If the swirl has multiple variations, the team will choose which variation they will be using. Team members 6-10 will be the clean-up crew for teams 1-5 for the morning session. Team members 1-5 will be the clean-up crew for teams 6-10 for the afternoon session.

Directions: We will be working from a master batch of ingredients that have been brought to the desired temperature. Teams 1 & 2 will be using a slow moving bastille formula. Teams 3-5 will be using a typical palm, coconut and olive oil formula. In the afternoon, Teams 6 & 7 will be using the bastille formula and teams 8-10 will be using the typical formula. Because we are working with two different formulas, please double check to make sure you are at the right station. Each station is very explicitly labeled as to which team should be at that station along with directions for measuring.

The recipes are as follows:

Bastille Recipe

Percentages:

68.75% Castor Oil
25% Coconut Oil
6.25% Castor Oil
6.00% Superfat

Oils:

176 oz. Olive Oil
64 oz. Coconut Oil
16 oz. Castor Oil

Lye Solution:

35.25 oz. NaOH
79.30 oz. Water
Lye Ratio = 1:2.25

Palm, Coconut & Olive Oil Recipe

Percentages:

39.8% Palm Oil
29.7% Coconut Oil
30.5% Olive Oil
5.00% Superfat

Oils:

102 oz. Palm Oil
76 oz. Coconut Oil
78 oz. Olive Oil

Lye Solution:

37.0 oz. NaOH
79.55 oz. Water
Lye Ratio = 1:2.15

Before we get started and to understand exactly what containers are being referenced, please see the description of the terms below:

- **Bucket** = the principle soapmaking container used to bring the soap to trace.
- **Pail** = a container used to measure the soap into the bucket and also a container in which the soapmaker will do an in the pot swirl.
- **Gallon Pitcher** = the principle container used to hold the lye solution for the formula provided.
- **½ Gallon Pitcher** = the container used to measure the lye from the lye tank into the gallon pitcher.
- **Batter Bowl** = the container used to divide the soap batter into parts for coloring and swirling.
- **Long Spatula** = the longer spatula used to stir the soap solution
- **Spatula or whisk** = Regular spatula or whisk used to stir the colors.
- **Dowel** = implement used to make swirl designs in the soap.

The soapmaking process will be divided among team members A,B& C. Please be sure and read the complete directions first to understand the process, then read the directions pertaining to your designated letter to be perfectly clear how to carry out your part in the soapmaking process.

Step 1. Safety first! All attendees must be wearing safety glasses, gloves and appropriate clothing before we will begin.

Step 2. This is the step to make sure you have all your materials and understand the process. The materials have been gathered for you and are either at your table or will be waiting for you at the designated stations. In this step, you will be given your assigned swirl. As a team, look over the directions for the swirl you are assigned and plan your design according to color, direction and variation of the swirl.

Step 3. Team Member A: Weigh the required amount of oils.

- Please take the principle soapmaking bucket to the corresponding oil weighing station for your team. Team numbers will be posted on the corresponding oil tanks.
- Check to make sure the gate valve (spigot) is in the closed position on the soapmaking bucket.
- Place the bucket on the scale and tare.
- Using the pail provided at the weighing station, draw off ¾ of a pail full of the premixed oils and pour into the soapmaking bucket. Check the weight of the oils and continue until reaching the desired weight posted. Pour any leftover oils in the pail back into the master batched oils.
- Return to your station. If you feel the weight of the bucket is too heavy for you to safely carry back to your station, please let one of the helpers assist you. Once you get back to your station, check the temperature of the oils. They should be between 95°-110°F. Ideal temperature should be around 100°F. If the oils are over 100°, allow them to cool by stirring. If the oils are below 100°F, place a lid on the bucket to preserve heat until ready to proceed.

Step 4. Team Member B: Weigh the required amount of lye solution.

- Please use the lye pitchers provided at the lye weighing station. Make sure you are at the correct lye weighing station. Team numbers will be posted on the corresponding lye tanks along with weight amounts for each step.
- The master batch lye solution is at a concentrated 1:1 ratio and is at room temperature. It will be necessary to add additional hot water to bring the solution to the correct temperature and concentration

Step 5. Team Member C: Weigh the required amount of colorant according to the assigned swirl.

- Team members have a choice of 4 colors plus the color of the soap. In step 2, the team members will have assigned the colors of the swirl.

Step 6: Stir the lye solution into the oils using the long spatula. **A** will stir the oils as **B** pours. **C** will check and record the temperature before proceeding further. If the soap is above 105°F, allow the soap to cool with gentle stirring.

Step 7: **Add the fragrance oil into the oil/lye solution.** B will pour the fragrance as A stirs the fragrance into the solution with the long spatula.

Step 8: **Bring the soap to emulsion.** With B using the stick blender, bring the oil and lye solution to an emulsion, pausing periodically to allow A to stir the solution from top to bottom with the long spatula. C will continue to monitor the temperature. Often, depending on the oils, temperature and surface area of the solution, a rise in temperature will occur at emulsion.

Step 9: **Assuring an even emulsion.** Once at emulsion, A will take the empty lye container and carefully place under the spigot. Slowly open the spigot and draw off $\frac{1}{2}$ - $\frac{3}{4}$ a pitcher of the soap emulsion (making sure to completely close the spigot) and pour the contents of the pitcher back into the bucket. C will stir the emulsion using the long spatula. This will assure a more even disbursement.

Step 10: **Dividing the emulsion for swirling and color.** A will carefully place the batter bowl under the spigot and slowly open the spigot and fill each batter bowl to the desired level as stipulated in the directions for the assigned swirl and hand to C. Make sure to completely close the spigot between the filling of each bowl and after all bowls are filled. Any remaining base color will remain in the bucket.

Step 11: **Mixing the colors.** C will add the color to the emulsion as directed in the assigned swirl and as stipulated by the team's design.

Step 12: **Achieving trace.** B will stick blend each of the emulsions in the batter bowl to a medium-thin trace as described in the power point presentation.

Step 13: **Pouring the swirl.** Find the directions below to the swirl you have been assigned and follow the directions.

Step 14: **Putting the soap to bed.** After the swirl is complete, team members cover the mold with the towel provided. Once the last batch of soap has set up, the team leaders will place the lid on the soap and cover with the towel.

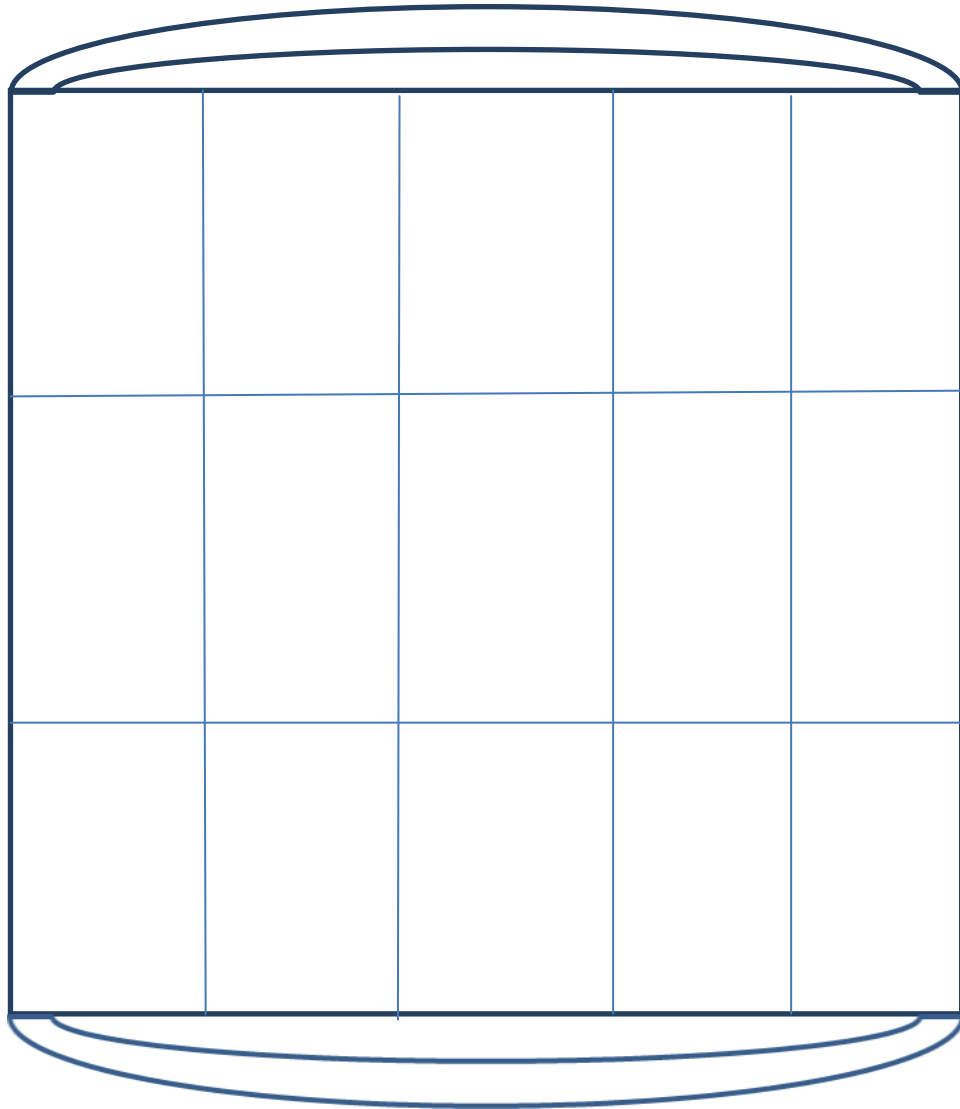
Step 15: **Cutting the soap.** All soaps will be cut during the breaks in the vendor area at the Team Towanda table. Please see the date and time your team is scheduled to cut their soaps. Please show up at the designated time in order to help cut the soap and take home samples.

3:30 – 4:30 Friday May 17 – Team members will cut mold 3/8 and 4/9

9:45 – 10:30 Saturday, May 18 – Team members will cut mold 5/10 and 1/6.

3:00 – 4:00 Saturday, May 18 – Team members will cut mold 2/7.

This diagram shows the direction of the bars in relation to the soap mold and how the logs will be split. How do you want to present your soap? If you want the swirl design with the broad side of the soap bar facing up, you will work your swirl horizontal with the handles. If you want the swirl design with the long narrow side of the soap bar facing up, you will work the swirl perpendicular to the handle.



Please use this diagram to help in designing your soap swirl.

Design # 1 The Funnel Pour

The funnel pour makes a fairly consistent bullseye pattern in the block mold that when cut gives a nice pattern reminiscent of the tiger swirl. This basic design is interesting on its own, but because it has consistent lines within the soap, it lends itself very well to many of the linear swirl designs that can be achieved in a slab mold. Attendees are encouraged to choose one of the swirl designs outlined on the next page.

Directions:

- *This is a five color swirl counting the natural color of the soap. Team members should have already chosen the order of their colors in step 2.*
- *All batter bowls should be filled to about 2/3 full. There will be more of the base color. Fill the batter bowl with the base color to about 2/3 full and leave the remainder of the base batter in the bucket to draw from when needed. Do not bring the excess batter in the bucket to trace until it is poured into the batter bowl.*
- *Pour slightly more of the base batter with each pour than the colorants. Example: If each team member counts to three to measure each pour, the team member with the base color should count to four or five.*

A will place the grid on the mold. **B** will place the funnel as close to center of the mold as the grid will allow. **C** will begin the pour into the funnel using color 1, followed by **B** with color 2 and then **A** with color 3, **C** with color 4 and **B** with color 5. Try keeping the pour equal with each of the colors except the base, which will be slightly more. A good idea is to count slowly while

pouring. This process will be repeated until all the colors have been used. Once all the batter has been poured into the mold, **A** will swirl the soap using the dowel provided and according to the pattern decided by the team.

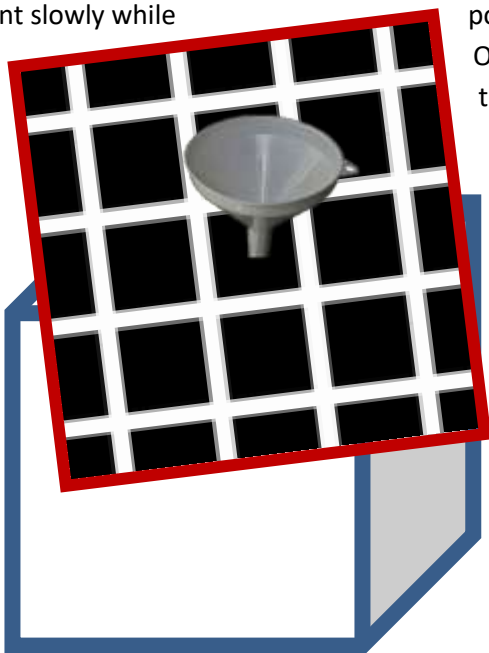


Figure 1

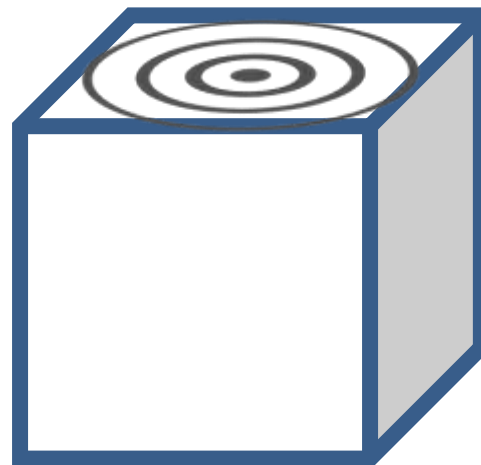
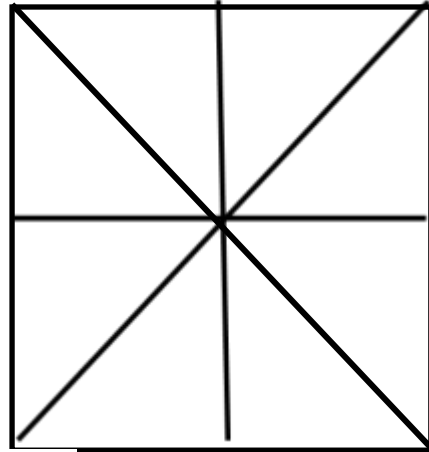
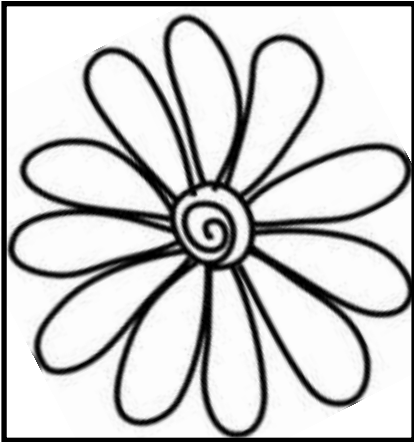


Figure 2

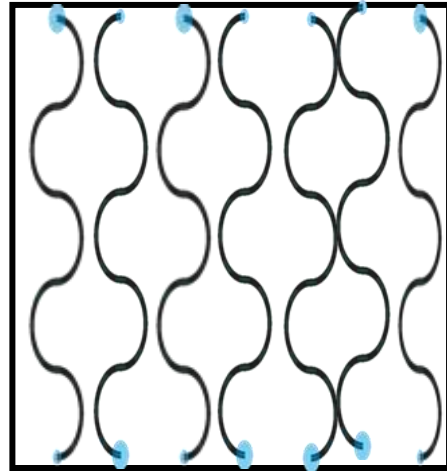
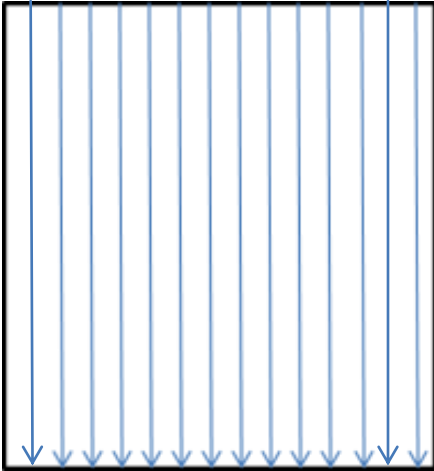
Follow the diagrams on the next page for the swirl of your team's choice. They should be self-explanatory.

Swirl Variations for the Funnel Pour



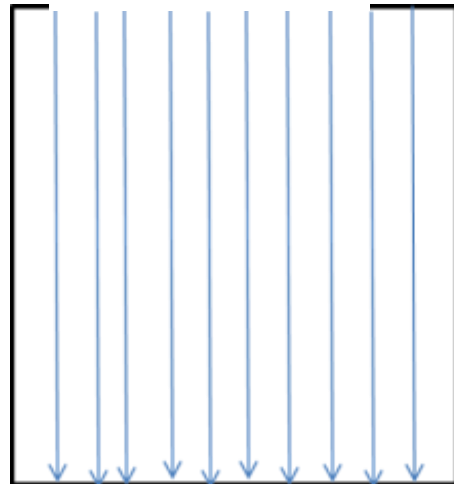
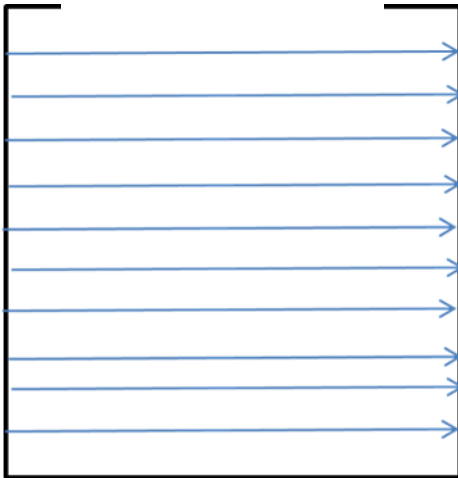
Petal Swirl

Spider Swirl



Peacock Swirl Part 1

Peacock Swirl Part 2



Herringbone Swirl Part 1

Herringbone Swirl Part 2

Design # 2. Five Funnel Pour

The five funnel pour is a fun swirl based on the single funnel pour, but is even more interesting without further manipulation. It gives a variety of different swirls due to the fact the circles intersect one another at different points creating tiger stripes, circles, half moons and unusual linear swirls. Every loaf and every other bar are a different design.

Directions:

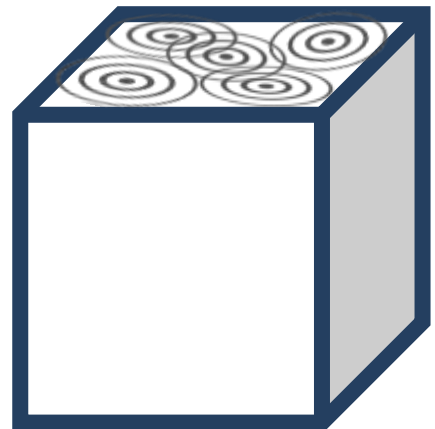
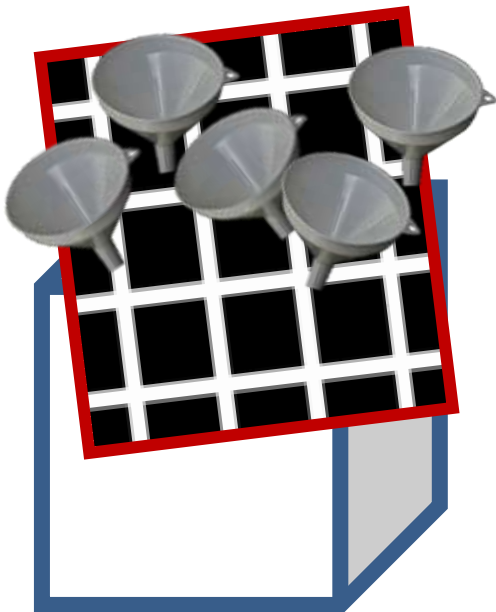
- *This is a five color swirl counting the natural color of the soap. Team members should have already chosen the order of their colors in step 2.*
- *All batter bowls should be filled to about 2/3 full. There will be more of the base color. Fill the batter bowl with the base color to about 2/3 full and leave the remainder of the base batter in the bucket to draw from when needed. Do not bring the excess batter in the bucket to trace until it is poured into the batter bowl.*
- *Pour slightly more of the base batter with each pour than the colorants. Example: If each team member counts to three to measure each pour, the team member with the base color should count to four or five.*

A will place the grid on the mold. B will place 4 funnels as close to the outer edge of the mold and 1 funnel as close to the middle as the grid will allow.

There are 5 colors, 5 funnels and 3 people. The challenge will be trying to keep track of the colors. Each batter bowl has a number and each colander has a number. A will be responsible for funnel 1. B will be responsible for funnel 2 and 3 and C will be responsible for funnel 4 and 5.

Member A, will begin the pour using color 1 in funnel 1; B with color 2 in funnel 2 and color 3 in funnel 3; C with color 4 in funnel 4 and color 5 in funnel 5. After the first pour, everyone will pass their bowl to the left. Member A will pour color 5 in funnel 1. B will pour color 1 in funnel 2 and color 2 in funnel 3. C will pour Color 3 in funnel 4 and color 4 in funnel 5. Continue passing in this manner until all the batter has been used.

Try keeping the pour equal with each of the colors except the base, which will be slightly more. A good idea is to count slowly while pouring. Once all the batter has been poured in the mold, tap the mold to settle the soap and get out any air pockets.



Design # 3 Collander Swirl

This is one of the easiest, yet most fascinating swirl designs in the lineup. Patterns reminiscent of Monet style landscapes are almost effortlessly achieved as the soap drips through the colander. You'll be waiting for the cut on this one!

Directions:

- *This is a five color swirl counting the natural color of the soap. Team members should have already chosen the order of their colors in step 2.*
- *All batter bowls should be filled to about 2/3 full. There will be more of the base color. Fill the batter bowl with the base color to about 2/3 full and leave the remainder of the base batter in the bucket to draw from when needed. Do not bring the excess batter in the bucket to trace until it is poured into the batter bowl.*
- *Pour slightly more of the base batter with each pour than the colorants. Example: If each team member counts to three to measure each pour, the team member with the base color should count to four or five.*
- *Pour the batter around the top edge of the colander. This will allow the color to reach all parts of the mold and give more character to the design.*

C will place the colander on the mold making sure the handles of the colander fit squarely on the mold. Member A, will begin the pour using color 1 followed by color 2; B using color 3, followed by color 4 ;C using color 5. Continue in this manner until all the batter has been used.

Try keeping the pour equal with each of the colors except the base, which will be slightly more. A good idea is to count slowly while pouring. Once all the batter has been poured in the mold, tap the mold to settle the soap and get out any air pockets.

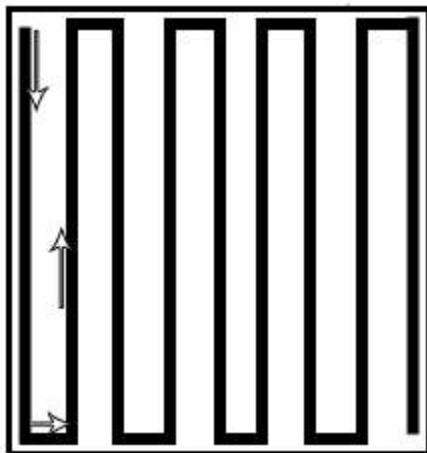


Design #4 Taiwan Swirl (Free Pour)

Anyone who has watched Soaping 101 is familiar with the Taiwan swirl. The beautiful lotus looking flower is an elegant and striking soap. This swirl lends itself well to either two, three or four colors. Rarely are more than four colors employed. Colors should alternate between light and dark for the most dramatic effect.

Directions:

- Divide your emulsified and fragranced soap into equalish parts
- Add colorants and blend keeping one portion uncolored (or whitened with titanium dioxide).
- Pour all of first color into mold. This will be your neutral base or light color.
- Pour all of 2nd color on top of first running back and forth in a straight line across the mold being mindful to keep line straight
- Pour 3rd colored portion in the same manner alongside the first. It is best to work from edge to edge.
- Repeat with remaining colored portions until all are in the mold.
- Place the end of the dowel to the bottom of the mold in one corner
- Run the dowel across the mold, hugging the edge of the mold at each turn, as shown the figure below to create a Taiwan swirl. The tightness of passes you make is completely up to your artistic feel. The more passes you make, the more swirled your soap will be but you can also run the risk of mudding your colors. The less passes you make, the less defined your swirls will be. Find a happy medium.
- One pass is all that is needed. End your swirl in the opposite corner and remove your dowel.



Design # 5 In the Pot and Drop Swirl

In the pot swirls are the simplest and quickest swirls to make. Used in conjunction with the drop swirl, another quick and easy swirl, unique and varying designs can be created. Because of how quick and simple, the pot and drop swirl is well suited to large batch production and fast tracing oils and fragrances.

The challenge with the drop swirl in a block mold is the direction the colors take when poured in relation to the logs are cut when using a block mold. You may be used to pouring in a loaf mold, where your bars are cut at 90°. Manipulating the movement of the drop swirl it quite easy. But when using a block mold, you are cutting your loafs at 90° from the pour and the bars cut at 0° from your pour. Therefore you will need to retrain your mindset to be aware of the angles.

The easiest way to overcome this dilemma is with an ITPS.

Directions:

- Pour off half of your emulsified and fragranced soap into equalish parts.
- You should now have your large bucket with 50% of the mix and 4 pitchers with approximately 12 ½% of the mixture each
- Add colorants and blend. We recommend using a lighter color for the large base.
- Pour all of back into the base as shown in the figure 1.
- Using the dowel, spin a circle one time around the bucket (figure 2).
- Pour your mixture into the mold in one spot. The colors will swirl from the pouring action.

Figure 1

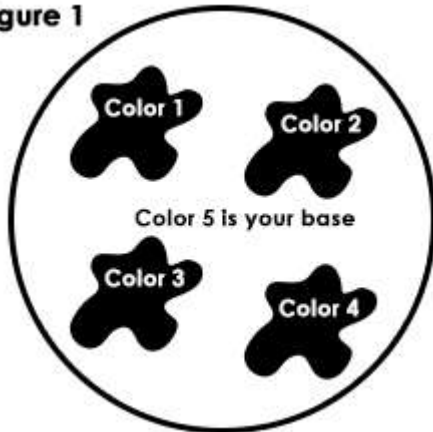
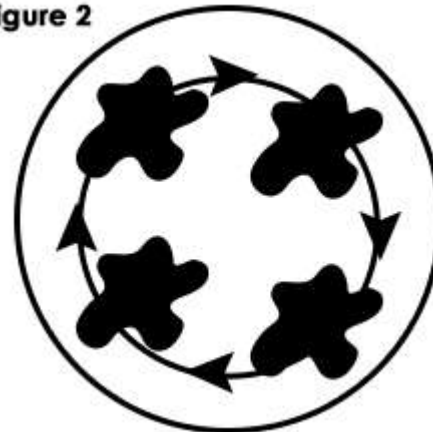


Figure 2



Colors

Your micas have been provided by Muddy Soap Company, www.muddysoapco.com. We have created custom blends with these colorants and the proportions are as follows (in the event you would like to recreate them for yourself):

Towanda Teal

50% Bleu
50% Frogger

Fried Green

70% Frogger
30% Bee in my Bonnet

Sugar Plum

95% Petunia
5% Black

Bee Charmer

98% Bee in my Bonnet
2% Little Red Corvette