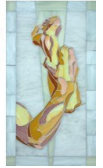
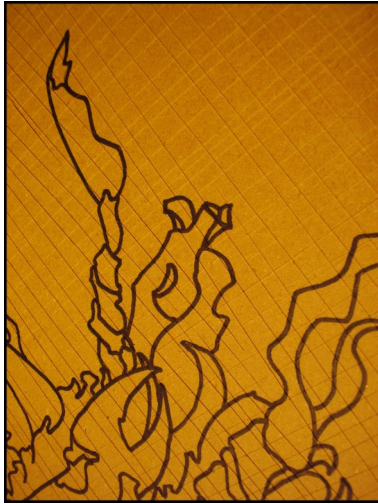


# Mosaic Bases, Adhesives & Grout



## Bases for Mosaic Work



MDF board with cross-hatch cutting.

Mosaic work can be done over any rigid surface with a few considerations. A surface that will warp or bend at all may pop tiles off. A very smooth surface can benefit from some roughing up with an abrasive such as sandpaper. Porous bases need to be sealed on all sides, including back and edges, before use. Sealing can be done with a primer/sealer that you buy at any hardware store or see comment below about Weldbond glue.

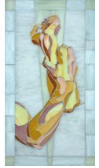
My favourite base for indoor use is MDF- medium density fibre board. It cuts easily with a hand saw, has no grain, does not warp and sands easily to produce finished edges. A dust particle mask should be worn while cutting and sanding. For pieces larger than 5"x 7" I use 1/2" thickness to ensure rigidity. Because MDF is quite smooth, score the surface with an exacto knife in cross-hatch pattern to give a roughness for the adhesive to grip. Seal after you have roughened the surface.

## Adhesives

Adhesives are anything you use to stick down the mosaic pieces to the base including **mortar, mastic, glue or silicone**. The different choices have to do, in part, with where the mosaic will be used -hung on a wall, as a floor, a backsplash or hanging in a window. Mortar is the strongest and works for places where there will be traffic on the tiles such as for floors. Mastic is used to place wall tiles in bathrooms and kitchens where there is humidity but no traffic on the finished piece. Glue and silicone are only for pieces to be displayed such as wall pieces. All of these adhesives can be found in the hardware store. Mastic comes pre-mixed. Silicone and glue come in tubes. Mortar comes in dry powder form.

The best glue I have found for mosaic work is called **WELDBOND** and is a white non-toxic glue that is clear and permanent when dry. This is what to use if your tiles are all of similar thickness. Mosaics meant for decoration and wall hanging work well with this glue. It cleans up easily with water. Most hardware stores will have it available in small bottles. Diluted 50:50 with water it may be used as a **sealant** for your MDF board producing a clear seal when dry.

# Mosaic Bases, Adhesives & Grout



**Mortar** is my favourite sticky stuff to work with. It can be spread thin or used in thick daubs to build up under thin tiles. You can “butter” the backs of tiles with it when placing one tile at a time. It is messy to mix and it sets fairly quickly when the wet mix is exposed to the air. I do up small batches at a time-no larger an amount than would mix up in a tuna tin. After it slakes (sits and rests after mixing) I spoon it into a thick plastic bag such as a milk bag and clamp off the opening, snip off a bottom corner and squeeze out mortar as I need it just as you would pipe out icing to decorate a cake! Use dry mortar by adding water. It is sometimes called Thinset as well. There are several brands but look for one with “Polymer-Modified” in the description such a **Mapei Keralastic**. Mortar is usually grey and you need to wear a mask while mixing the powder and rubber gloves. It is not great for lungs or skin.

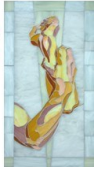
How to prepare dry mortar for use:

1. Wear gloves on your hands and a face mask with a fine filter over mouth and nose.
2. Pour a small amount of water ( probably only a 1/4 cup or less) into a small plastic or tin container (grab one out of the recycling). Scoop out about the same amount of dry mortar as water and slowly mix with a paint stick or old fork. You want no lumps. It will be runny.
3. Continue adding mortar powder, 1 or 2 Tablespoons at a time, mixing in between each addition to always keep the mixture smooth. You have added enough powder to the water when the mixture is the consistency of frosting. (Well...sandy frosting-not the kind you would actually want to eat-grey too-yuck). You want NO lumps!
4. Now it needs to *slake for 10 minutes* so just leave it alone, uncovered and go make yourself a cup of tea and by the time the tea has steeped and been carried back to your workroom the mortar will be ready to scoop into the milk bag to use.

I find that by squeezing the prepared mortar out of the closed bag I will be able to work with it for 3 or 4 hours before it starts to become too stiff and dry for proper adhesion.



# Mosaic Bases, Adhesives & Grout



## Laying Tiles In Adhesive

Just a couple of notes on this:

\* You can either spread the adhesive across a section of the base and lay tile to fill in that area or you can squeeze adhesive onto the back of each tile piece just before you put it in place on the board. Either way, don't have more adhesive out in the air –on your board or tile- than you can use in about **10 minutes**. After that it starts to dry or set. **Let the mosaic dry 24hrs. after fixing it down** with mortar or mastic or glue. You want to be on the safe side and be sure that it is dried so that you won't knock loose any pieces when grouting.

\* Tweezers and dental pics are very handy little tools to have around to manoeuvre pieces where you want them to go. I got my pics from my dentist when she had worn them out for her uses. They are great!

\* When you glue down a piece, give it a little wiggle in place on the board and that helps to ensure a good grip.

\* For a mosaic where you are using tiles of the same general thickness, the mortar or mastic only needs to be spread to a thickness of 1/2 the tile thickness. You don't need tons of the stuff! It gets heavy later when you try to hang the finished piece that has half a ton of mortar on it.

\* Mortar has a memory as it sets so if you loosen a piece by mistake, or wish to change a piece of tile while the mortar is still moveable, scrape out all of the mortar in that spot and daub on fresh mortar from your bag before setting the piece in a 2nd time. Give it that little wiggle to.

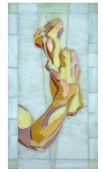
Useful tools :  
Dental Pic,  
Cuticle Trimmer  
and two types of  
Tweezers



**\* CLEAN UP NOTE -DO NOT rinse any mortar or grout down a sink, toilet or any water system.** It can coat the pipes, hardening and blocking them up permanently. That goes for washing hands or gloves off too. Wipe containers and hands with wet paper towels and throw them (the towels, not your hands) in the garbage after.



# Mosaic Bases, Adhesives & Grout



## Grouting

### To Grout or not to grout and what shade of grout?

These are the burning questions of the mosaicist! Well, *this* mosaicist.

Grout is the mortar like mixture that squeezes in between the tiles and fills in all the spaces. Though it has ingredients in common with mortar, it is not any good at sticking tiles down. It just likes to give the tiles bear hugs and hang around them. Some mosaics are not grouted. Some are partly grouted. Some are grouted with multiple colours of grout. If your piece is part of a floor or wall it will need grout to give a finished and clean, level surface. If the mosaic is hanging on your wall then do what you feel will give the look and feel you want for the piece. Generally pieces that are not grouted have tiles that are wedged up close against each other. For grouting, even spaces are left between the tiles. Grouted and ungrouted can both be interesting.

### What shade? What type?

A basic middle shade of grey is the most useful grout colour to have if you are going to buy just one bag of grout. Go with SANDED grout, not un-sanded, as it is more adept at filling in larger crevices. There are a number of makes available locally anywhere floor tile is sold. Grout colour effects the way our brains read the image in the mosaic. A grey grout will bring together areas of both light and dark tiles equally well. Using a paler grout will meld together areas of the paler tiles and strongly show the spaces between the darker tiles. Dark grout will do the opposite. It all depends on the look you want.



**Pale Grout**-binds together the pale tile areas but breaks up the darker sections of colour making it harder to read the dark foliage as one form..

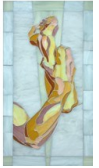


**Middle Toned Grout**-fractures the dark and light tile areas more equally to give more continuity to the piece.



**Dark Grout**-binds together the darker areas but fractures the light sections into being seen as individual tiles.

# Mosaic Bases, Adhesives & Grout



## The Grouting Process:

1. Use a mask and gloves as you did for mixing mortar. The mixing process is also the same as for mortar except you can leave the grout a little more mushy than you did the mortar-more like sandy sour cream than the sandy frosting we were thinking of for the mortar. One more yummy image. Let it slake the 10 minutes.

2. Push the grout in between the tiles of your mosaic. You can do this with a grout float or you can just use your gloved hands or a rubber spatula that you might use to scrape out batter when cooking. The idea is to fill in all of those crevices. Don't worry about getting it on the face of the mosaic. You will wipe it off in a few minutes. Just enjoy mushing stuff around! Think mud pies.

3. Now gently scrape off the heavy clumps of grout on the mosaic face. Be really gentle doing this if you have tiny mosaic bits or sections that stick above the main level of the other tiles. There will still be a haze of grout on your mosaic face.

4. To get off that final haze there are a couple of ways you can go about it. The most common way and the way that is used if you are installing a tile floor, is to do a series of wipes across the surface with a special tiling/grout sponge, rinsing and squeezing the sponge out really well between each time so that you are not adding water to the grout as you work. The other technique that I use more and more now, is to rub the mosaic with dry newspaper sheets, using any tool like a dental pic or my other

favourite-the cuticle trimmer, to pick off any grout pieces that are difficult to get to and un-wanted. I find this way less difficult because you are not left with grout water you have to figure out how to dispose of. I have also been known to use old tooth brushes to wear away still moist grout.

5. Next day you can give a final polish to the surface if there is still haze.



Using a grout float to force grout between the tiles.  
Messy!!

Sheryl Crowley - Fractured Art Mosaics  
667 Manawagonish Rd., Saint John, N.B. E2M 3W6

506-333-9091

sheryl@fracturedartmosaics.net www.fracturedartmosaics.net