



# Mica Myths

Mica is a fun material to work with and can produce many interesting results when fused onto glass. Unfortunately, there are many myths and misunderstandings about it.

## Mica won't fuse to glass

Mica will fuse to any glass. It just won't fuse to other mica and won't fuse to a metallic surface like on iridescent or dichroic glass. If you pile glass powder on top of other powder you will get a stronger color. It's doesn't work the same with mica. Only the pieces that touch the glass will fuse to the glass. Any mica sitting on top of other mica and not touching the glass will not fuse. It will just brush off after. Mixing the mica powder in a liquid to apply like paint will encourage the mica particles to spread out more to have of them fuse to the glass.

Mica applied wet



Mica applied dry



*The top image demonstrates how mica particles when wet will spread evenly on the glass.*

*The bottom image demonstrates how mica particles will sit on other mica particles and not contact with the glass and thus not fuse to the glass.*

## Iridescent glass

Mica will fuse to any glass but it will not fuse to the metallic surface of iridescent or dichroic glass. If you sandblast or acid etch a design to remove some of the metallic surface and apply mica powder the mica it will not fuse to any of the metallic surface but will fuse only to the areas exposed by etching.



*The image has been sandblasted to etch through the metallic iridescent surface. Mica spread onto the etched areas will fuse to the glass but not to the areas not etched. After firing, any excess mica that didn't fuse on was swept off and returned to the original container to be used in a future project.*



# Mica Myths

## Mica loses color when fired

The mica we use for glass art is a mineral with color additives. Not all the color additives survive kiln firing temperature. Some lose all the color, some fade at higher temperatures and some retain the color. The only way to be sure the mica you use will retain the color is to either do your own tests or buy only mica that has been tested for fusing. High temperature encourages colors to fade or burn off. Bronze, copper, gold and silver retains full color better than blue, green, purple or pink.



*Various colors of mica applied with a rubber stamp and fused onto a black glass base then onto stacked layers of clear glass.*

## Mica requires full fuse

Mica will fuse to glass as low as 1250°F (675°C) so you can fuse it to glass during a drape or slump firing.



*Clear glass pebbles tack fused onto a 3mm clear glass round. Mica sifted on and fired to slump to form a shallow bowl while mica fuses on.*



*Copper mica spread onto clear cord textured architectural glass and fired to drape at 1200F (650C) to form the vase while fusing the mica to the glass.*



# Mica Myths

## Mica is a serious hazard

You should avoid inhaling large amounts of mica but it is mostly a nuisance dust. Either be careful when working with it or wear a paper dust mask.

## Mica is Messy

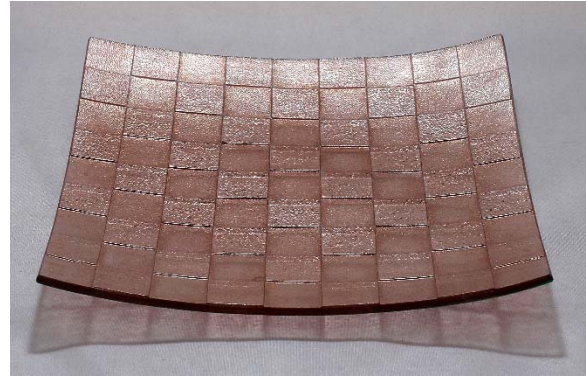
This is not a myth. It's entirely true. Mica powder is extraordinarily fine and can get everywhere when you work with it. It will stick to your skin and to your clothes so you want to be careful when handling it. I expect to get mics over my shirt and pants whenever I work with it. I refer to the experience as getting "sparkelized". You might want to wear a paper mask to avoid inhaling it but expect to experience sparkelizing when working with it.

## Mica creates air bubbles

Yes it does, but only when you apply it thick and fire it capped. Loose mica will have pockets of air that are likely to create bubbles if you fire loose mica sandwiched between layers of glass.

## Mica must be capped

It should be capped if you want the project food safe. When fused to the surface of glass, mica will retain a rough texture like sandpaper. If you want to keep a smooth surface you must fuse other glass over it. If you plan to do this, it's better to fire the mica to fuse on, dust off any that didn't fuse, then fire again with clear glass capped over it.



*A textured glass tray coated with copper mica and fired uncapped.*



*A black glass vase coated with gold mica and fired uncapped.*



*Tempered glass chips with gold mica*





# Mica Myths

## Mica must be applied dry

Mica can be sprinkled on dry or mixed into a liquid to apply like paint. Some of the things that work well to make paint with mica are clove oil, CMC, gum arabic, "glastac" honey, lavender oil and even flat 7UP. You can also use water or isopropyl alcohol but, because the powder settles and separates quickly, you will have to stir the mixture frequently.



*Mica mixed as paint being applied into sandblasted area with an eye dropper.*



## Won't fire to high temperature



*Bronze, gold and silver mica fired onto a black base to 1700°F (925°C) and combed.*



*Combed mica project fired in a mold with scraps of clear glass as a cap then slumped into a bowl.*