Vitreous enamels are highly pigmented ground glass that can be applied and melted to the surface of glass or metal to color it. The 9000 series of Thompson Enamels has been especially prepared to “fit” Moretti glass with a COE of 104. The 32 opaque colors available are produced in 80 mesh powder form and can be rolled or sifted onto the surface, encased, and kneaded into Effetre/Moretti to color it. The powders can also be mixed together to create new colors or a speckled effect.

**Surface Coloration of a Bead**

The simplest way to use an enamel is to color the surface of a bead with it. The bead can be made of clear glass or a transparent or opaque color close to the enamels shade (experiment!). To color your beads, hold a teaspoon of enamel powder just below your flame, bring your bead to an orange glow, lower it into the spoon, and rotate, trying to cover evenly. Please note that Thompson Enamels have a lower melting temperature than Moretti and should be watched closely while being rotated in the flame. Rotate quickly, dodging in and out of the flame frequently. Watch as the granular surface begins to adhere and resembles the texture of an orange peel. From here, it will melt into a smooth surface. If you have any bumps resulting from an uneven application, you can use the graphite paddle to even things out. To completely cover your bead, you may need to roll it in the enamel one or two more times.

Regarding the openings of your beads, you can cover your bead right down to the mandrel with enamel, or you can leave the ends lightly colored, with the base bead showing through. The former approach will create openings that will probably need to be ground down, although the bead will have a consistent color. The latter will give you a bead that isn’t 100% covered, but it still looks great and doesn’t need work to clean up its openings.

Of course, these beads need to be annealed just like any other, and do best if placed directly in the kiln after leaving the flame. Make sure beads do not touch in you annealer.

An interesting departure from using a single enamel to color your bead is to mix two contrasting colors together to produce a granite or “bird’s egg” effect. You can also sift a contrasting color on your surface in a specific place - a great effect if you’re trying to mimic nature.

Beads that have been colored with enamels on their surface can also be encased successfully.
Stringers of a Different Color
You can make stringers colored with Thompson enamels to decorate your beads. Heat about 3/4” of a glass rod similar to the color of the enamel you plan to use. Do not develop a gather on the end of the rod, just heat it until it is glowing. Position a teaspoon of enamel just below the flame and roll your rod in it. Return to the flame to melt the enamel onto the glass. You can roll the rod between your graphite paddle and a graphite block if it needs to be reshaped. After two or three applications of enamel, attach a glass punty to the end, heat to a good glow in the flame, and pull your stringer. You may also choose to case your stringer with transparent or clear glass. This will ensure that the enamel does not lose its intensity from overheating.

Twisting Canes
Take the above step further and make twisted cane with new colors. Again, you may choose to encase your enamel or not before combining it with the other rods you’ll be twisting with it.

Kneading Thompson Enamel into Moretti
I have done limited experimentation kneading enamel into glass. Thompson Black #9990 will make Moretti black more dense - even thin stringers feathered on the surface of a white bead do not show the typical brown faded look of Moretti black alone. Thompson Dark Orchid #9780 kneeded into Moretti Dark Rose opaque produces a very pretty pink. You can also knead these enamels into Moretti transparents to produce glass that is translucent or alabaster in quality. Again, keep in mind that Thompson enamels melt at a lower temperature than Moretti. If you boil them, the color will fade, so be careful.

I have encased base beads made with these mixtures of enamels and Moretti with no problem, so I do not believe we are adjusting the COE when we knead enamel into the glass.

Safety Warning
When using enamels, you’ll be creating small clouds of glass dust. Use adequate ventilation and a particle mask. While Thompson enamels are lead-free, a few of the the colors contain potentially harmful metals such as cadmium and cobalt. Fortunately, there are only a few of these and they arrive to you well labeled by Thompson with safety procedures. Familiarize yourself with them!

MSDS: There should be a MSDS warning with Thompson Enamels, if one is not included, do not use the materials, if one is included, it is very important to read and understand.

I hope I’ve inspired you to experiment with this wonderful selection of new colors. We are truly fortunate that Thompson enamel was willing to devote so much time and energy to develop a 9000 series specifically for Moretti glass. In experimenting with them the past few months, I think I've only nicked the surface regarding the many used of this versatile product. have fun discovering what it can do!