

Clay-Bond™ PLUS: AN ALTERNATIVE TO SOLDER

By Jennifer Gastelum

Clay-Bond™ PLUS is a new spin on the traditional method of soldering. It is now possible to join metal pieces without any soldering skills, and it can even be done using a kiln. Clay-Bond™ PLUS is a powder containing silver, flux, and a binder, which can be used to join sterling and fine silver to pre-fired silver clay pieces, as well as to join post fired, or sheet metal pieces. Bronze clay, copper clay, copper sheet, brass sheet and any combination of these metals will all successfully join together. To use, simply mix the powder with water, apply to the surfaces to be joined and fire in a kiln or by torch. The end result is a bond that is comparable in strength to traditional solder.

Clay-Bond™ PLUS has several unique benefits compared to traditional soldering. A primary advantage is that, as the paste dries, the pieces are secured in place, thus maintaining proper alignment; there's no slipping and sliding around once the paste is set. Also, since it is set in place prior to being placed in the kiln, external tools, like a third hand, are not necessary. Another benefit is that, multiple items can be prepared and fired at the same time, making fabrication a breeze.



When I received the package of Clay-Bond™ PLUS in the mail I was not familiar with the product at all. After briefly reading the instructions I noticed they used the word solder so I was thinking, "OK this is a new technique for traditional soldering". Well I was wrong. When I more thoroughly reviewed the instructions, I discovered Clay-Bond™ PLUS is soldering but a completely different method and soldering skills are not required.

In testing this product I chose to work with fired pieces of fine silver and copper. For the silver piece I used a double layer of paper clay, and the base piece was made out of copper clay. My first attempt at joining the pieces was successful out of the kiln, but they popped apart while finishing. I reviewed the instructions and discovered that I had not used enough paste between the pieces and I did not have the pieces fully flush with each other. On my second attempt I corrected my mistakes and re-fired them. When firing I increased the temperature in my kiln by 15 degrees and extended the firing time by five minutes. Presto, this time the pieces were successfully joined, and I might add, they came out with a pretty cool patina. I did notice that a small spot on one of the edges of the silver was not fully tacked down. I again attribute this to my error of not having the pieces completely flush with each other prior to firing.

I would suggest testing this product first on simple pieces, rather than a design you have put a great deal of time and money into making. Testing on cut out shapes of sheet metal or basic metal clay shapes would be an ideal way to learn. Also keep in mind the importance of cleaning the edges of your joints before firing. The color of the product, which in my piece was similar to steel, will show after firing and it can detract from your design. Additionally, remember, not all kilns are the same. Play with times and temperatures of the kiln as well.

There are two areas where I am excited to use Clay-Bond™ PLUS in the future: first, will be soldering jump rings, and the second will be adding posts to earrings.

In short, I was very comfortable with the product itself as many of the techniques are similar to those used with metal clay, especially if you are used to working in powdered clays. It is easy to use, eliminates the need for “third” hands, and is a valuable addition to my workbench.



About Jennifer Gastelum

Jennifer was introduced to the exciting world of metal clay in 2007 when she decided, on a whim, to take a class at the community college with her mother. Since this time, Jennifer has become a Senior Instructor for Art Clay and Level III Instructor for PMC Connection.

After many years in a very stressful and dangerous job in law enforcement, she decided to make major changes in her life and do what she loves. As the owner of Jewelry Artist Supply Jennifer takes pride in providing the best customer service and superior products for artists. Jennifer spends her free time with her family, four rescue dogs and training for various long distance bicycle races located in the Southwest.



Jewelry Artist Supply
www.JewelryArtistSupply.com
Info@jewelryartistsupply.com
520-407-6060