

A COMMENTARY and PERSPECTIVE

by Tony Aquino

... If happiness could be measured by versatility, then polymer clay is the happiest medium around. To say that it is the most versatile of all art mediums is an enormous understatement. The end results produced can not be accomplished by any other art material. You can make jewelry, sculpt, cane, bead, mosaic, and create whatever faux you want. It can be solid, stiff, and flexible all at once. These are properties that can't be said about oils, acrylics, pastels, ceramics, glass, or any other art medium. As versatile as it can be, it also has its challenges.

As a formulator and artist, I am in a unique position to offer a perspective of the polymer clay that I am most familiar with from both sides of the spectrum. An arduous task in formulation is reaching a different "happy medium" of working properties. As an artist you want consistency from your polymer clay while manipulating it to serve the needs of your chosen technique or project. I am amazed by the ingenuity of polymer clay artists and much of that is shared and documented on glassattic. This was my go to website for instant information about polymer clay, plus having a copy of Nan Roche's "The New Clay" was very beneficial to this polymer clay novice. A lesson learned in life from the most menial of jobs to the President is that you can not please everyone. It just is not possible, so you go for the happy medium. You can call it the "Goldilocks Principle" of trying to reach the middle ground of satisfaction. Even the President has to move a little to the middle once in awhile.

Firmness and softness of polymer clay appears to be an issue that has been around since the idea of using a PVC (Polyvinyl Chloride) compound for artistic applications first started. That is the reason softening products were developed and the leaching process was devised. As for firmness, there is always the possibility that the polymer clay may have been exposed to elevated temperature for a period of time thus starting the curing process. In this occurrence, the clay can be difficult if not impossible to condition. That is just an incidental circumstance affecting viscosity, another could be age, another could be the quality of raw materials and yet another could be human error. Why can't polymer clay manufacturers be more consistent with their consistency? Many have probably wondered. I believe that polymer clay manufacturers true intent is to produce the best quality products they possibly can and have implemented consistent processes and manufacturing procedures. Unfortunately, the clay that you purchase today most likely is not going to have the same firmness as the same color you have had on your shelf for one or two years. When you factor in formulation changes because of regulations, shortages or even discontinuance of raw materials, consistency can drift a little further. As we are all at the mercy of oil companies at the gas pumps, manufacturers are at the mercy of their raw material suppliers. These ingredients may have slight variances from previous lots or have been reformulated or tweaked due to costs and could result in different behaviors that may not be immediately known. What seems to be a never ending problem facing manufacturers, especially small businesses, are the constant changes of corporations and their acquisitions of other companies, resulting, in many cases, in the elimination of what they consider "slow movers", which could be a component that might be necessarily unique to your product. Because small businesses can not afford to buy truckloads of a single raw material to receive decent price breaks, small quantity purchases come with enormous price increases. The bottom line of corporate decisions is profit. Why is it that cereal boxes are smaller, paper napkins are thinner, potato chip bags are less full and more products are made in China and India? I just recently read that some chocolate candy bars have air pumped in them to increase volume. That is the present state of manufacturing. Unlike the current outrageous oil and food prices, when manufacturers are hit with raw material price increases on short notice, they are stuck with it as they never go down. What goes down is the profit margin. As one raw material supplier put it in a recent email justifying a price increase, "We are experiencing a dynamically challenging business environment". This particular company also forewarned of increases for the next quarter also.

Personally, I prefer a firm clay as some artists do, but I also empathize with those who are frustrated with the difficulty to condition it and that is a reason for making Kato Polyclay easier to condition. In order to accomplish that it will have to be less firm.

Of all the art mediums that I have been involved in manufacturing, polymer clay receives my vote for "Product Most Likely To Be A Prime Candidate For Murphy's Law". It all starts in the mixing process. As

time and temperature are important in curing your polymer clay, it is even more important when mixing in the manufacturing process. Because you are working with machinery, friction and shear rate can increase viscosity (depending on the rheological characteristics of the resin). Although freshness of polymer clay is not the only reason for initial softness (formulation and resin viscosity are also key), it does play a role. It would be ideal to have the luxury of having the clay sit for several months before it is shipped, but that is not always possible. This semi-aged product would have had the opportunity to advance some, reducing the contrast of fresh viscosity to older viscosity. Like most products, it would be nice if what is wrapped at the end of the production line is the desirable firmness you receive and always will without any age changes. That is not the case with polymer clay. Testing has proven that firmness does increase in time; the dilemma the end user faces is working with colors that might be in different stages of advancement, especially in intricate canework.

As polymer clay is unparalleled as an art medium so is its quiriness in its behavioral uncured life, in comparison to other art mediums. PVC, while used in construction, electrical, medical, clothing, automotive, sports, office, furniture and more, is normally molded or extruded immediately, eliminating any possibility of thermal degradation or dealing with long term stability. In essence, packaged polymer clay is just in an extended holding stage.

Through experience, many artists have learned to work with whatever shortcomings this medium may have. They have developed tricks, processes and "work arounds " and have adjusted to the product and " Make it work " as Tim Gunn says on Project Runway, a television show with creative artists of fashion. Polymer clay artists are resilient and hold true to the saying " where there is a will, there is a way " and with experimental minds and in some cases mistakes, new techniques and innovations are created. I love that inventive aspect and the development of original uses. You should use a clay that works best for you considering creativity, quality and economy. As our own personal economics go, 99 cent deals are hard to pass on and using polymer clay as a loss leader to get customers in the door appears to be a strategy that has worked for many years. You can't beat two ounces of polymer clay for a buck. On the other hand, it does make it hard for local Mom and Pop craft stores to compete and they are becoming a dying breed. There will come a day when China or India will produce a decent polymer clay at a very low cost.

Can a polymer clay be both soft and firm ? That would be ideal, but a very tall order. With Kato Polyclay, we will continue to produce a product with exceptional cured strength and color stability, adding easier to condition, improved sculpting properties, higher gloss when sanded and buffed and extended shelf life stability to the mix, in our quest for a happy medium. When we first became involved in polymer clay, I thought I had an understanding, having heard tales of unpredictability, production and shipment nightmares. I wondered why there was only one company in the entire US producing polymer clay, unlike other competitive art materials. Could it be all of these intangibles ? Who's to say ?

While there has been some polarity with users descriptive terms associated with polymer clay such as love and hate. As contrary as soft and firm is, a conclusion that could be made, is that polymer clay is both simple and complicated.