



## Macro-Crystalline Glaze Process

*Using Mayco's Engobes, Seeding Media and Crystalline Clear Glaze*

Macro-Crystalline glazes are renowned for their stunning beauty. They also are known for their difficulty in producing consistent, reliable results. Even professional potters experience high failure rates, creating expense and frustration. While the advent of programmable kiln controllers has greatly improved the success of developing crystals, obstacles still remain with the mystery of the crystalline generation. Mayco now offers a glazing process that will create opalescent crystals with more consistency, higher probability of growth and with a greater level of control over the location of crystal development.

Mayco's Crystalline glaze program involves the use of three products: Engobes, Seeding Media and Crystalline Clear. Each product and its role in the process is defined below:

**Engobes** are a clay-based coating that is applied to greenware or bisque. In addition to providing color beneath the clear glaze finish, the Engobe serves to protect decorative design work from imperfections in or on the raw clay surface.

**Seeding Media** was designed to work in conjunction with Mayco's **Crystalline Clear** to trigger macro-crystalline patterns in the Crystalline Clear glaze. It is the placement of the Seeding Media that causes the crystalline process to occur. A single dot of Seeding Media will create a localized area of crystal patterns while a light, overall wash will create a broad area of crystalline growth.

Product Application Process:

1. Engobes: Apply 2-3 coats to a soft fired (cone 04) or fully fired (cone 6) stoneware or porcelain body (*Note: the clay body must be capable of withstanding a cone 6 firing*).
2. Seeding Media: Apply single dots or a wash (4 parts water to 1 part Seeding Media) on the Engobe-covered surface.
3. Crystalline Clear: Apply 3 coats over the Engobe and Seeding Media applications. This glaze MOVES and will require a basin to catch glaze drips. Application tip: Apply the first coat to the entire piece; stagger subsequent coats higher up on the ceramic ware to lessen the flow of the clear glaze from running off the ware.
4. Enter the firing program (below) into your programmable kiln controller and start the program.
  - a. **Ramp 1:** 9999 (take the kiln up to temperature as fast as possible) to 2300°F (1260°C)
  - b. **Hold 1:** 0.00
  - c. **Ramp 2:** 9999 to 2012°F (1100°C)
  - d. **Hold 2:** 6.00 hrs

*Notes:* While the recommended hold time is 6 hours crystals may be formed in as little as 3 hours. (Longer hold times will produce larger crystals, shorter hold times will produce smaller crystal growth). Test to verify compatibility of decorating colors other than Mayco Engobes as Crystalline Clear can be aggressive towards underlying colors. Thicker applications of Crystalline Clear tend to produce larger crystals. Varying the thickness of the Engobes and Seeding Media, as well as the Crystalline Clear can produce vastly different and exciting results. Blending different Mayco Engobe can produce unique colors.