

Fast Cast

INVESTMENT POWDER

THE #1 SAME DAY 3D RESIN & WAX CASTING INVESTMENT SOLUTION

KEY MIXING NOTES

1. It's normal for the material and flask to become hot after the investment has set.
2. After the mixing process has started, the working time is 4 minutes. Once the working time has passed, the material will become very hard.
3. If the slurry of powder and liquid hardens in less than 4 minutes, the liquid should be refrigerated before mixing with the powder.



MIXING INSTRUCTIONS

This much powder,	requires this much distilled water in mL, (15%)	and this much binder in mL, (85%)	creates this much binder working solution (mL)
100g (3 x 3" Flask)	4	21	25
600g (3.5 x 3" Flask)	21	129	150
1 lb (454g)	17	96	113
5 lb (2270g)	85	486	565
10 lb (4540g)	170	960	1130
25 lb (11350g)	425	2400	2825

1. Approximately, 600g of powder is enough investment for one 3 x 3" flask. (454g = 1lb)
2. Our suggested ratio for making a working liquid solution is 85% binder concentrate and 15% distilled water by volume. Always cap off your bottle of working solution and shake thoroughly prior to using.
3. The correct ratio for one 3 x 3" flask is 150 mL of pre-mixed working solution to 600g of powder.
4. We recommend a mechanical mixer with a stainless steel bowl. Add the working solution first, then the powder second. Mixing by hand is not recommended as it is difficult to achieve a uniform consistency with this method. Working time is 4 minutes.
5. Mix at a low speed for 15-20 seconds until all the powder has been thoroughly mixed.
6. Mix at a high speed for 3 minutes until the material is uniform in texture and has a custard-like consistency.
7. For best results, use a vacuum table to remove all air bubbles from your newly mixed investment while in its mixing bowl for about 1 minute. If your mixing bowl does not fit under your vacuum table's bell jar, pour your investment slurry into a smaller rubber bowl first, then proceed with the vacuuming process.
8. Once vacuumed, pour the investment slurry into the flask up to its rim, then vacuum the slurry while in the flask a second time for 30 seconds to remove any residual air bubbles.
9. Allow your prepared flask to set for at least 1 hour prior to loading it into your oven.

BURN-OUT INSTRUCTIONS

3 ½ hour burn out

1. Hold flask in oven at room temperature for 1 hour.
2. Ramp up to 1350°F (Gold) over 90 minutes or 1600°F (Platinum) for 105 minutes. (If oven takes longer to reach final temperature is okay)
3. Hold for 1350°F (Gold) or 1600°F (Platinum) for 1 hour, then cast.

6 hour burn out

1. Preheat oven to 300°F.
2. Load flask and hold for 1 hour at 300°F.
3. Ramp up to 575°F for 1 hour.
4. Hold Flasks at 575°F for 2 hours.
5. Ramp up to 1600°F (Platinum) or 1350°F (Gold) over 1 hour.
6. Hold for 1 hour at 1600°F (Platinum) or 1350°F (Gold).
7. Reduce flask temp. for Gold down to 1000°F to cast.

INVESTMENT REMOVAL INSTRUCTIONS

1. Quench the flask after the button is no longer red in color
2. Take a hammer and tap the round sprue base from the bottom of the flask
3. Use a water investment blaster and/or a Romanoff EZ blaster to remove the investment



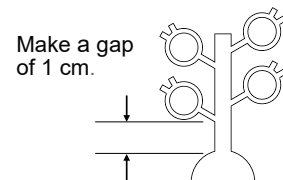
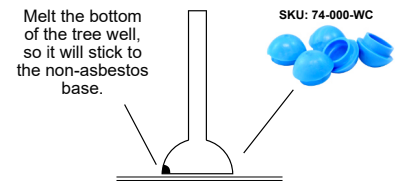
Description	3 x 3" Flasks Approx.	Part #	Powder	Liquid
Fast Cast Large Kit	18 - 19	Z14-FC25-1	25lbs	2x 42 oz + 1x 16 oz Concentrated binder solution

TREEING AND FLASK PREPARATION

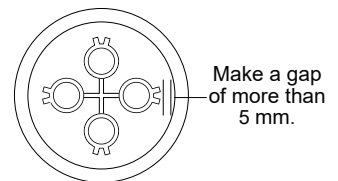
- Attach the wax button (P/n 74-000-WC) by heating the bottom of it and straddle it over the 3/4" hole.
- Mount your wax patterns to the button at a minimum 45 degree angle up from the button.
- Carefully place a sheet of non-asbestos paper completely around the inside of the flask to line the inside of the flask.
- For a 3" Long flask, use non-asbestos roll, which measures 2 1/2" (53mm) wide (SKU: 76-0855) so that it will be 1/4" (6mm) short at each end of the flask. This allows for the necessary absorbency of the binder and allows space for the investment to attach to the inside of the flask.
- Place the stainless steel 2.75mm flask, usually 3" (80mm) x 3" (80mm) (SKU: 76-047) over the wax patterns and centered on the 4" x 4" non-asbestos square (SKU: 76-0881-SQ).
- Then use hot sticky wax (SKU: 74-0603-KG) to attach and seal the outside of the flask to the 4"x4" base, making it water tight seal. You can dip the bottom rim of your flask into a melted liquid container of the sticky wax.
- Add masking tape around the top of the flask, approximately 1.5" to extend around the top of the flask to allow the investment to rise during vacuuming. It is important that you fill the flask up to the top the first time rather than "top off" with a second filling.



Wax cone



Stainless Steel Flask (Top View)



Stainless Steel Flask (Side View)

