

MIXING PROCEDURE FOR KERR INVESTMENT

STORAGE: Always store investment in a dry environment. After use, collapse polybag against the powder, expelling all air and close lid tightly.

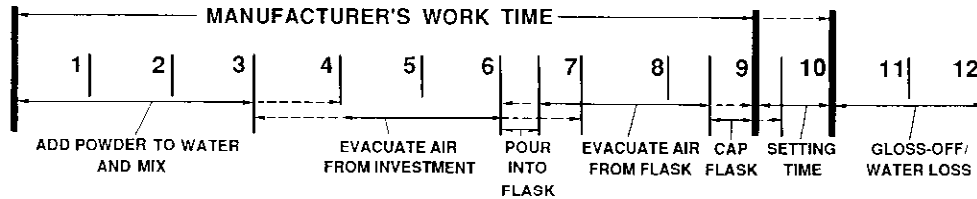
The investment should be added to the water in the recommended water/powder ratios shown below and mixed with a mechanical mixer.

The **work time** is the time that has elapsed between the point powder is added to the water to the time the investment begins to thicken.

To determine actual work time, mix a batch of investment. Note each step, beginning when the powder is added to the water, until the investment begins to gloss off. Subtract 2 minutes from this total time. The time remaining will be the actual work time.

Kerr Satin Cast 20 has an average work time of 9 to 10 minutes. To insure proper investment handling follow the work time diagram.

1. Weigh investment.
2. Measure water (water should be 70°F/21°C to 75°F/24°C).
A colder temperature will extend the work time. A warmer temperature will shorten the work time. For best results, work time should be kept within the specified time of 9 to 10 minutes.
3. Always add the investment to the water.
4. Mix by hand (30 seconds).
5. Mix by machine (3 1/2 minutes).
6. Vacuum investment in mixing bowl (1 1/2 minutes, not to exceed 2 minutes).
7. Pour investment into flask.
8. Vacuum investment in flask (1 1/2 minutes).
9. Let flask sit a minimum of one hour.
10. Remove sprue base.
11. Load into oven.
12. Follow burnout cycle which fits your situation (flask size and number per oven).



RECOMMENDED PROPORTIONING CHART FOR KERR INVESTMENTS

SATIN CAST 20 / SUPERVEST 20 @ 40/100 Ratio • SATIN CAST REGULAR @ 38/100 Ratio

WEIGHT Pounds (gms)	FOR HEAVY CASTING 38/100 (38 ml. water to 100 gms. powder)		FOR REGULAR CASTING 40/100 (40 ml. water to 100 gms. powder)		FOR EXTRA FINE CASTING 42/100 (42 ml. water to 100 gms powder)	
	WATER av. oz.* (ml)	Yields Approx. cu. in. (cc)	WATER av. oz.* (ml)	Yields Approx. cu. in. (cc)	WATER av. oz.* (ml)	Yields Approx. cu. in. (cc)
1 (454)	6.1 (172)	21 (349)	6.4 (182)	22 (359)	6.7 (191)	23 (369)
5 (2268)	31 (862)	107 (1745)	32 (908)	110 (1794)	34 (953)	113 (1844)
10 (4535)	61 (1724)	213 (3490)	64 (1816)	219 (3589)	67 (1906)	225 (3687)
15 (6803)	92 (2586)	320 (5235)	96 (2724)	329 (5383)	101 (2859)	338 (5531)
20 (9070)	122 (3448)	426 (6980)	128 (3632)	438 (7178)	134 (3812)	450 (7374)
25 (11338)	153 (4310)	533 (8725)	160 (4540)	548 (8972)	168 (4765)	563 (9218)

NOTE: To determine flask content in cu. ins.:
Volume of round flask = 0.7854 x dia.² x height.
Volume of square flask = width x length x height.

* Av. oz. = Avoirdupois Ounces NOTE: a) 1 ml. = 1cc. b) To calculate fl. oz. of H₂O divide mls. by 29.57.

WAX ELIMINATION SUGGESTED BURNOUT CYCLES

NOTE: During last hour the temperature must be adjusted so that flasks are at correct temperature for casting.

5 Hour Cycle	8 Hour Cycle	12 Hour Cycle
For flasks up to 2-1/2" x 2-1/2" Preheat furnace to 300°F/149°C	For flasks up to 3-1/2" x 4" Preheat furnace to 300°F/149°C	For flasks up to 4" x 6" Preheat furnace to 300°F/149°C
1 hour - 300°F/149°C 1 hour - 700°F/371°C 2 hour - 1350°F/732°C 1 hour - See note	2 hour - 300°F/149°C 2 hour - 700°F/371°C 3 hour - 1350°F/732°C 1 hour - See note	2 hour - 300°F/149°C 2 hour - 600°F/315°C 2 hour - 900°F/482°C 4 hour - 1350°F/732°C 2 hour - See note

EXAMPLE: Mold temperature for ladies ring or items of lacy or intricate design should be 900°-1000°F (482°-538°C). Mold temperature for gents ring or items of relatively heavier design should be 700°-900°F (371°-482°C).

Kerr

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