

SC-X INVESTMENT



Ideal for Rapid Firing White Gold Without Cracking

SC-X investment is based on the SC20 formula, however it contains a higher percentage of cristobalite, making it best suited for casting white gold.

- High compressive strength and low thermal expansion
- Can withstand rapid and high temperature burnouts without cracking
- Smooth lustrous surface quality with high details
- Recommended mixing ratio: 38-40 mL water to 100g powder

SC-X investment is used to form lost-wax molds for the casting of jewelry and fine art pieces with gold, silver and other metal alloys. SC-X investment is composed primarily of powdered silica (quartz), cristobalite (a form of quartz) and a gypsum (calcium sulfate) binder. Water is mixed on-site by user prior to use to form the mold.

Typical Material Properties*

Silica (SiO ₂) (Quartz & Cristobalite)	Calcium Sulfate (Gypsum)
60-80%	20-40%

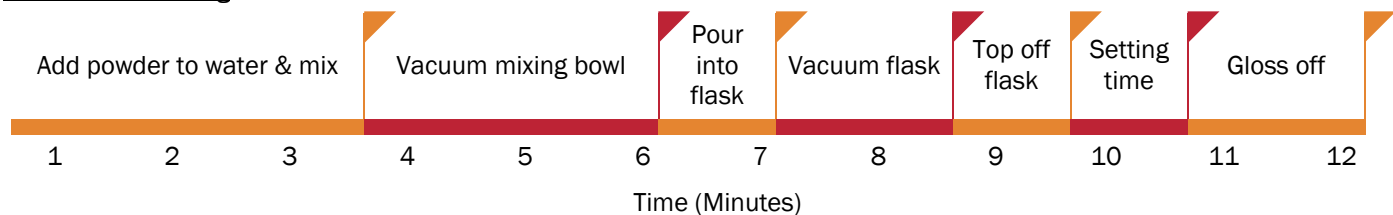
*These results are based on the testing methods, frequency and procedures of Ransom & Randolph or its approved suppliers. The levels referenced herein are only for general guidance and do not constitute a firm specification.

Mixing Instructions

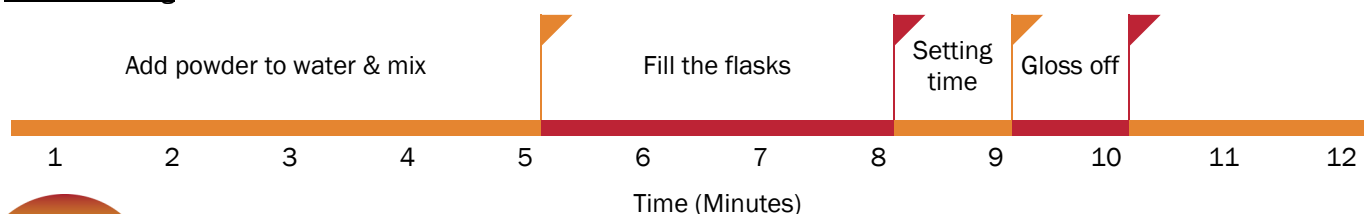
1. Weigh investment.
2. Measure water.
3. Add investment to water.
4. Mix 3-3.5 minutes.
5. Vacuum 20 seconds after boil.
6. Pour into flask.
7. Vacuum up to 90 seconds.
8. Let flask sit still for 2 hours.
9. Preheat furnace 300°F (149°C). **Note:** Do not preheat for multiple flasks.
10. Remove sprue base.
11. Load into furnace.
12. Follow appropriate burnout cycle.

Recommended Working Time

Conventional Mixing



Vacuum Mixing



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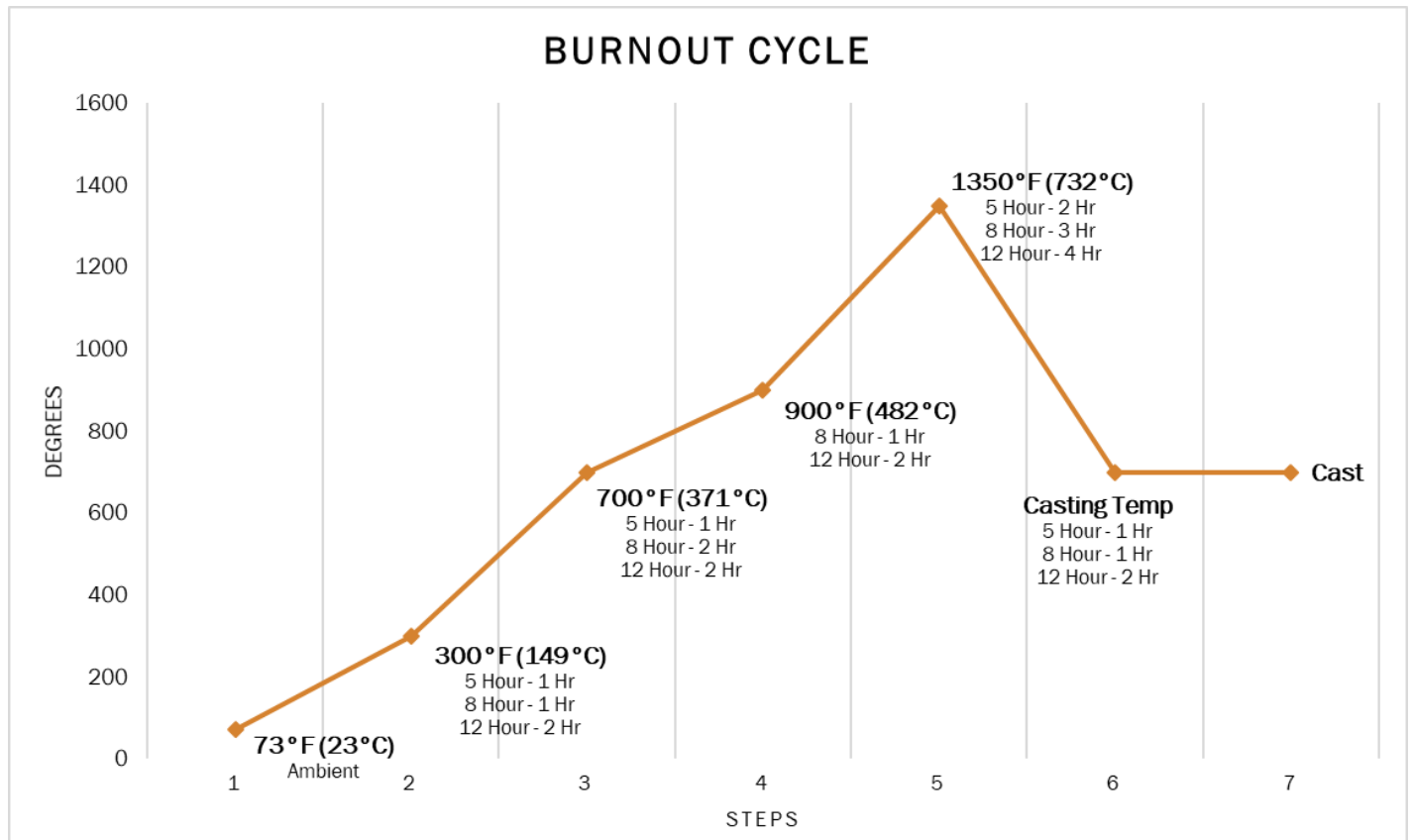
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Work time: Elapsed time between adding powder to the water and thickening of investment.

Water temperature: Water should be 70-75°F (21-24°C). Colder water = extends work time; Warmer water = shortens work time.

Water quality: Deionized (DI) or distilled.

Burnout Cycle



Casting Temperatures

Type of Ring	Temperature Range
Women's rings (intricate designs)	900-1000°F (482-538°C)
Men's rings (heavier designs)	700-900°F (371-482°C)

Note: During final 1-2 hours of burnout, adjust temperature so flasks are at correct casting temperature.

Hold Time

Cycle Length	Size
5 hour	2.5 in x 2.5 in (63 mm x 66 mm)
8 hour	3.5 in x 4 in (89 mm x 100 mm)
12 hour	4 in x 8 in (100 mm x 200 mm)

Note: Graph is meant as a guide only. Adjustments should be made as necessary. 5, 8, and 12 Hour Cycles represent hold times only and do not include ramp time. Recommended ramp time of approximately 9°F (5°C) per minute.



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Storage & Handling

Avoid skin or eye contact. Avoid breathing dust. Wear protective equipment during handling. Wash thoroughly after handling. Close the protective bag tightly in the container of unused investment powder and close the container when not in use. Always store investment in a dry area.

Safety

North America: Danger. Contains crystalline silica. May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure by inhalation. See SDS for more information.

EU: Danger. Contains respirable crystalline silica. Causes damage to lungs through prolonged or repeated exposure. See SDS for more information.

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