

# SC-X INVESTMENT



## SC-X

A Jewelry Investment Formulated Specifically for Casting the Highest-Quality White Gold

Keep covered when not in use. Keep dry. Store at ambient temperature. Prevent dust accumulation.

Made in the USA



RANSOM & RANDOLPH  
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Investing with Innovation™

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

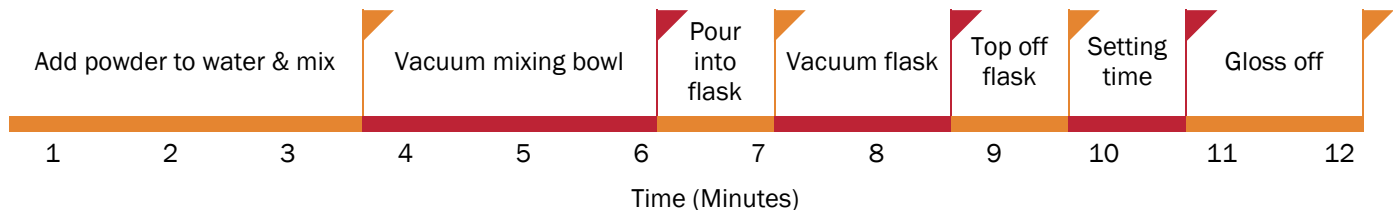
SC-X investment is used to form lost-wax molds for the casting of jewelry and fine art pieces with gold, silver and other metal alloys. SC-X investment is composed primarily of powdered silica (quartz), cristobalite (a form of quartz) and a gypsum (calcium sulfate) binder. Water is mixed on-site by user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

## 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



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.



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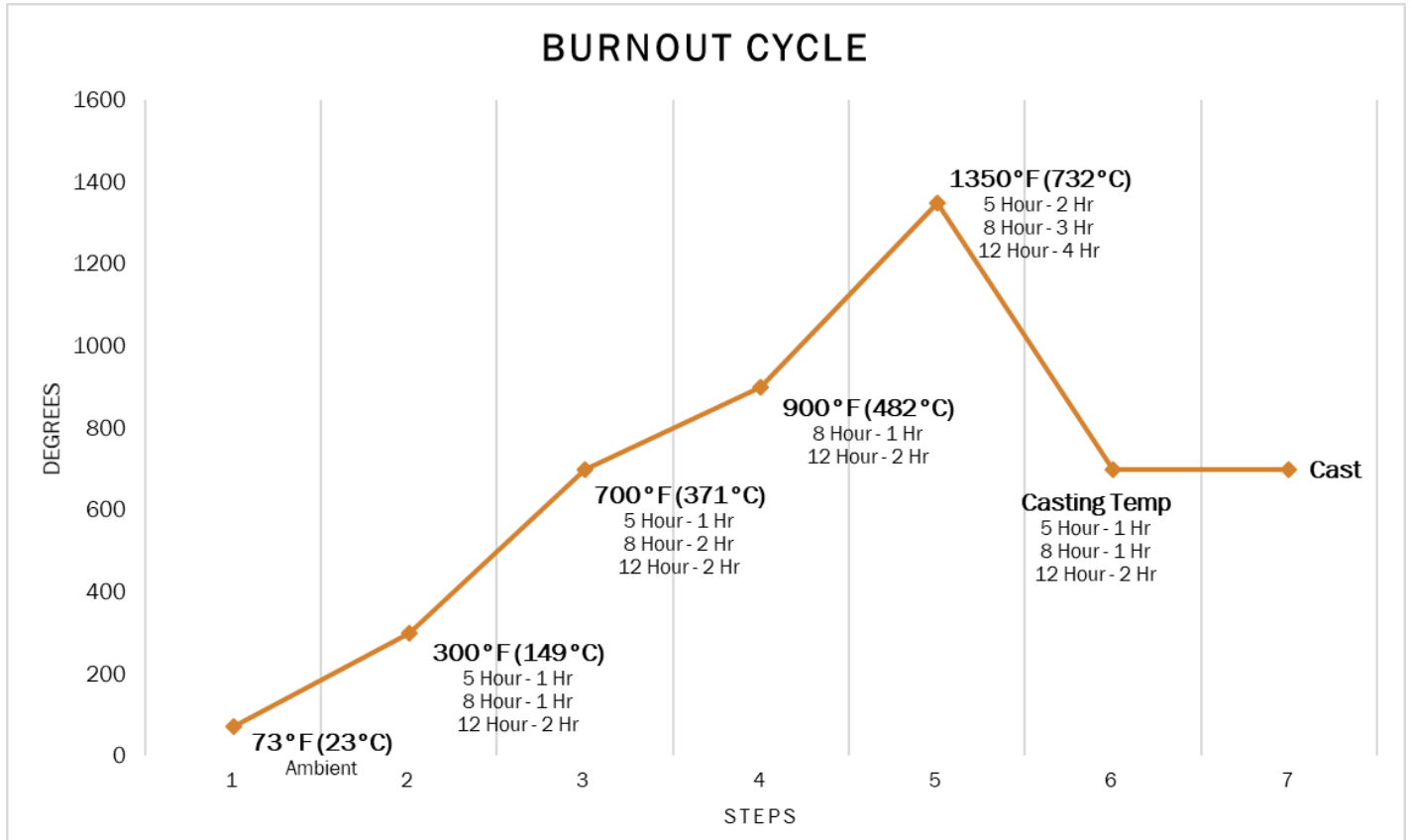
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## Burnout Cycle



## 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.

## Typical Material Properties\*

Silica (SiO <sub>2</sub> ) (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.



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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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