

# SC20 INVESTMENT



## The World's Most Trusted Jewelry Investment for Casting High Quality Silver and Gold

SC20 investment is recognized by the global jewelry casting industry as the benchmark for casting the highest quality gold and silver.

- Ideal thermal expansion for wax setting
- Very flexible formula can be used with all types of metals and designs
- World's most trusted investment
- Recommended mixing ratio: 38-40 mL water to 100g powder
- SV20 investment is a thick-slurry version of SC20, useful for large (i.e., figurines) gold/silver castings

SC20 investment is used to form lost-wax molds for the casting of jewelry and fine art pieces with gold, silver and other metal alloys. SC20 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.

Available with BANDUST™ technology, reducing respirable dust in the investing process.

## Typical Material Properties\*

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

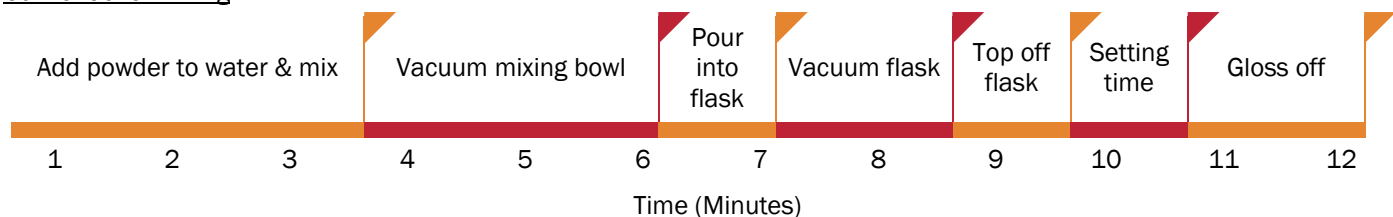
\*These results are based on the testing methods, frequency and procedures of Ransom & Randolph or its approved suppliers. The levels referenced herein are only for general guidance and do not constitute a firm specification.

## 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



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## Vacuum Mixing

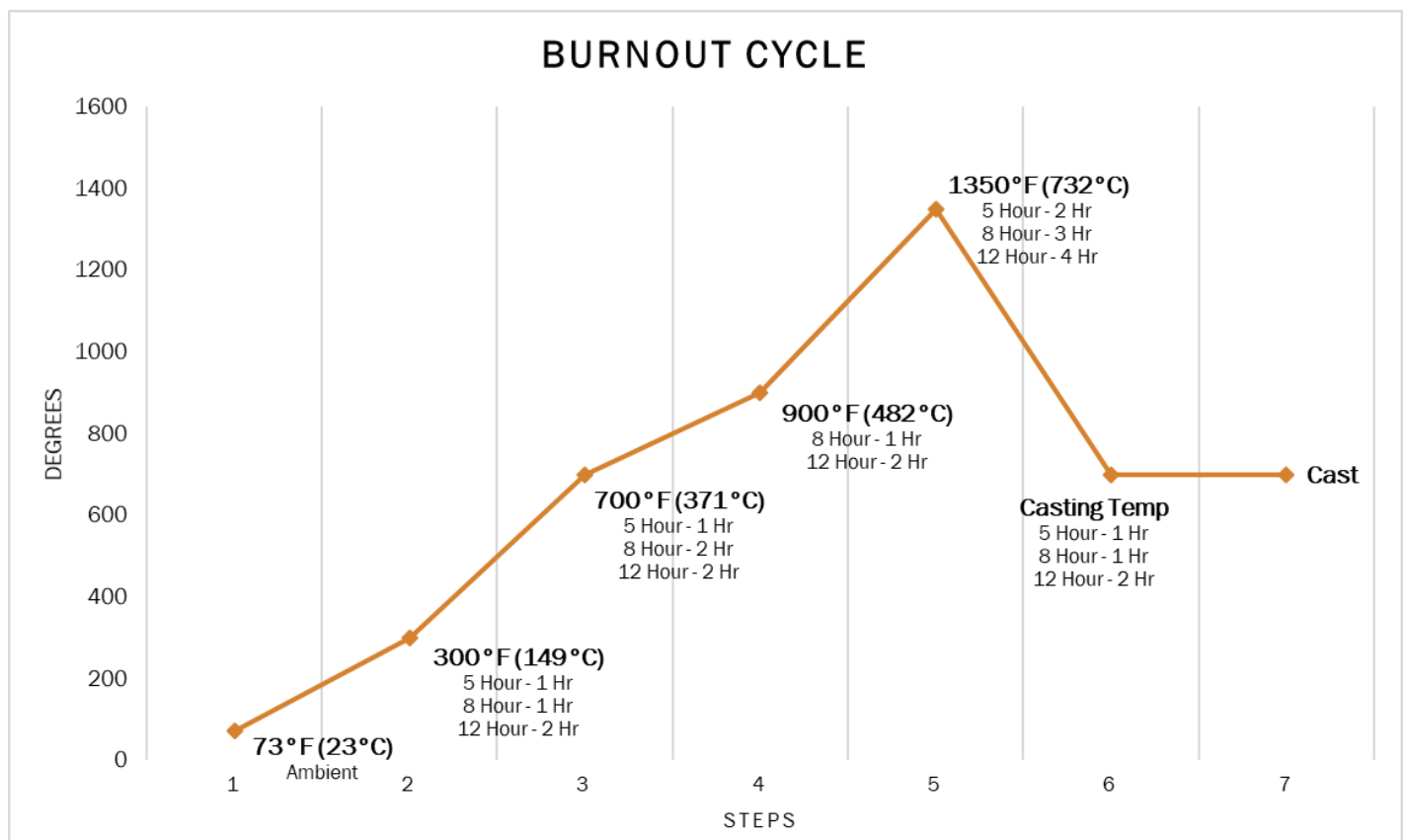


**Work time:** Elapsed time between adding powder to the water and thickening of investment.

**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.

## Burnout Cycle



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## 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)
<b>Note:</b> 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.

## 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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