

# RAPICAST ORIGINAL INVESTMENT

## DIRECTIONS FOR USE

Schottlander Rapicast is a phosphate bonded investment for use with both bonding and crown and bridge dental alloys. By varying the liquid concentrations it may be used with high gold, palladium and non-precious alloys. It contains no graphite and possesses high temperature strength and so it is suitable for ringless casting as well as for use with metal rings. Rapicast may be introduced into a hot furnace.

### WARNING

This product contains quartz/cristobalite and is classified as **Harmful**. Read health and safety section of these directions and request a copy of the Safety Data Sheet before use.

### INDICATIONS

For the production of moulds for dental castings for:-

- 1 High and medium gold content bonding alloys.
- 2 Palladium based bonding alloys.
- 3 Non-precious bonding alloys.
- 4 Inlays, onlays and full cast crowns.

### PROPORTIONS

**The liquid/powder ratio is 15 ml:60 g (25ml:100g)**

The recommended liquid concentrations are as follows:-

Description	Liquid
	Concentration
Non-precious alloys	100%
Palladium based ceramic alloys	75-100%
45% Gold or higher ceramic alloys	50-80%
Full coverage gold crowns	65%
Inlays, onlays and conical crowns	50%-55%

### PREPARATION

Prepare the liquid to the concentration recommended above. When using the ringless system clean the removable plastic/rubber ring carefully and use wax to avoid any edge inside the ring especially from the overlap of the two ring halves. When using a metal ring, line it with a suitable ring liner ensuring that the metal is fully

covered and fixed in place with a pliable sticky wax. Use one thickness liner for 1x and 2x and double thickness for 6x rings. Soak lined ring in water for a minimum of 1 minute then shake well (5 times) to remove excess and place onto former base. Do not use rings larger than size 6x.

### MIXING AND APPLICATION

Best results are obtained when both powder and liquid are stored and used at room temperature (approximately 21°C). Pour the Rapicast liquid (suitably diluted) into a damp mixing bowl, add the powder and incorporate it rapidly by hand. Hold under vacuum for 15 seconds then spatulate rapidly under vacuum for 1 minute using a mechanical mixer. After mixing hold the vacuum for a further 10 seconds to thin the mix then fill the ring using light vibration. Leave on the bench for 15 minutes to set.

### WORKING AND SETTING TIME

Working time from start of mix at 21°C	approximately 5 minutes.
Setting time on bench	15 minutes.

### DRYING AND HEATING THE MOULD

After the ring has bench set for 15 minutes trim the surface to remove the skin and place the mould in a hot furnace at 900°C with sprue hole down. In the case of furnaces with floor heating make sure that there is sufficient clearance (approximately 1cm) between the ring and the bottom of the furnace. If the ring is left to bench set for longer than 25 minutes, use a 2-stage burn out technique (see below).

Depending on the ring size heat soak at 900°C for the times shown below:

1x ring	25 minutes
3x ring	35 minutes
6x ring	45 minutes

If using non-precious alloys cast immediately. For high palladium alloys allow to cool for 1 minute before casting and for high gold alloys allow to cool for 3 minutes before casting.

Where a 2-stage burnout is preferred heat from cold to 290°C for both wax and plastic patterns or sprues. Hold these temperatures for 30-45 minutes depending upon the mould size and then raise to final casting temperature.

COOLING THE MOULD

Leave mould to cool by itself and do not plunge into cold water immediately after casting.

STORAGE

Store in a dry place between 10-23°C. Keep liquid from freezing.  
**Warning:** Plaster containing materials contaminate Rapicast Investment. Store such materials separately and use different bowls and spatulas. Always close liquid bottle after use and discard if there is 1mm or more sediment at the bottom of the bottle.

HEALTH & SAFETY

Investment powder contains quartz and cristobalite. R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation. S2 Keep out of reach of children. S22 Do not breathe dust. S38 In case of insufficient ventilation, wear suitable respiratory equipment.

For further information request health and safety data sheet.

Vapours emitted may ignite if the furnace is opened during initial burnout. Do not open for 15 minutes after placing the investment mould.

BATCH NUMBERS

The batch number and date of manufacture are shown on the outside of all containers or on the printed sachets.

This product is specifically formulated for use in dentistry.

PHYSICAL DATA

(at a temperature of 21°C and liquid at 75% concentration)

Proportion	The liquid/powder ratio is 15ml:60g (25ml:100g)
Working time at 21°C	5 minutes
Setting time on bench	15 minutes
Ready for burnout	15 minutes from pouring
Setting expansion after 1 hour	Approximately 0.95%
Thermal expansion (700-1000°C)	Approximately 1.1%