WiroFine

Precision casting investment material for partial dentures – shock or conventional heating

**Safety instructions** Please read and follow the instructions in the insert

“Safety instructions and general instructions for BEGO investment materials”!

WiroFine can be heated up rapidly (“shock heat”) or conventionally.
The possible insertion temperatures are room temperature approx. 20 °C/70 °F (conventional) or 700 °C to 1000 °C/1290 °F to 1830 °F (shock heat).

**General instructions**

- Liquid for shock and conventional preheating:
  BegoSol® K (Frost-sensitive! Storage and transport temperature: +5 °C to +35 °C/41 °F to 95 °F).
  Liquid only for conventional preheating:
  BegoSol® (Storage and transport temperature: –10 °C/14 °F to +35 °C/95 °F).
- Before mixing, rinse out the clean mixing bowl with water and wipe off.
- Ideal processing at 20 - 23 °C; higher processing temperatures reduces the working time.
- First put in liquid and add powder, mix thoroughly with a spatula for at least 15 seconds. Then mix in a mixing unit for 60 seconds under vacuum conditions, as far as possible.
- Suitable for one-piece casting technique, in conjunction with ProtoOne™ die investment (REF 54823).
- Duplication can be carried out in gel moulds or in silicone moulds. When working with a pressure compaction unit, silicone moulds and the duplicate model must be made under the same conditions (2 – 4 bar)! Duplicate in gel moulds only without pressure!
- Fill duplication mould on the vibrator and then remove it immediately from the vibrator.

**Duplication**

- Duplication can be carried out in gel moulds or in silicone moulds.

**Investment**

- In case that a higher expansion is recommended, the model can be produced with a higher liquid-concentration of 80 %. The liquid-concentration for mould/ring remains unchanged at 70 %!

**Surface treatment**

Drying
30 minutes (250 °C/500 °F)

Dipping/spraying
briefly 3 times (approx. 2 seconds)

Subsequent drying
5 minutes (250 °C/500 °F)

**Removal from mould**

after 45 – 60 minutes

**Silicone (Wirosil®, Wirosil® plus)**

after 30 – 60 minutes

**Mixing**

**Mixing ratio**

<table>
<thead>
<tr>
<th>100 g Powder : 20 ml Mixing liquid</th>
</tr>
</thead>
</table>

**for 2 duplicate models**

<table>
<thead>
<tr>
<th>WiroFine</th>
<th>Liquid</th>
<th>Aqua dest.</th>
<th>Total</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x 400 g</td>
<td>56 ml</td>
<td>24 ml</td>
<td>80 ml</td>
<td>70 %</td>
</tr>
</tbody>
</table>

Liquid: BegoSol® **

** for shock and conventional preheating

Liquid: BegoSol® **

** only for conventional preheating

Please note: Only those models fabricated in gel moulds need immersion hardening with Duroil or Duroil E. Models duplicated with silicone only have to be dried for 10 mins. before applying Duroil Fluid.

Before investing, prepare the wax-up with Wiropaint plus fine investment material or Aurofilm wetting agent (please follow the processing instructions for the products).

Fill mould ring on the vibrator and then take away from vibrator immediately.

Remove the mould ring 10 minutes after investment!

**Mixing**

**Mixing ratio**

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**for 1 mould**

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** for shock and conventional preheating

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Please read and follow the instructions in the insert

“Safety instructions and general instructions for BEGO investment materials”!
**Preheating**

<table>
<thead>
<tr>
<th></th>
<th>Conventional preheating</th>
<th>Shock heat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting after investment</td>
<td>at least 30 min</td>
<td>20 min</td>
</tr>
<tr>
<td>Insertion temperature *</td>
<td>room temperature (20 °C)</td>
<td>700–1000 °C / 1290–1830 °F</td>
</tr>
<tr>
<td>Holding levels</td>
<td>250 °C / 500 °F (5 °C/min / 9 °F/min) **</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>570 °C / 1060 °F (7 °C/min / 12 °F/min) **</td>
<td>–</td>
</tr>
<tr>
<td>Final temperature</td>
<td>950 °C – 1050 °C / 1740 °F – 1920 °F</td>
<td></td>
</tr>
<tr>
<td>Holding times</td>
<td>30 – 60 min (depending on size and number of moulds)</td>
<td></td>
</tr>
</tbody>
</table>

**Risk of injury in connection with shock heating. Caution: Danger of darting flame!**

Place all moulds in the furnace within 10 seconds – then keep the furnace door closed for 15 minutes!

After casting, allow the moulds to cool down until warm to the touch in a protected and designated location; do not quench in water!

Investment materials contain quartz. Do not inhale dust! Danger of lungs harms (silicosis, lung cancer).

To avoid dust during deflasking, place the moulds in water after they have cooled down completely after casting until they are thoroughly moistened.

**For particularly good results we recommend an alloy from the following groups, depending on the indication**

Tel. +49 421 2028-282
www.bego.com

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**Availability and recommendations**

**Castogel®** 52052 (6 kg)
**Wirodouble®** 52050 (6 kg)
**WiroGel® M** 54351 (6 kg)
**WiroOne®** 54823 (6 kg)

**WiroSil®** 52001 (2 kg)
**WiroSil® plus** 54854 (2 kg)
**WiroSil® duplicating flask system** 52072 (small), 52083 (large)
**Durol E** 52148 (1000 ml)
**Durol** 52111 (1000 ml)
**Durolfluid** 52008 (100 ml)
**Wiropaint plus** 51100 (200 ml)
**Aurofilm** 52019 (100 ml)

**WIROMIUM®**
(Only given to authorized laboratories)

**Wironit®**