

Conventionally heatable phosphate-bonded precision casting investment material for all partial denture alloys.

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Wirovest® phosphate-bonded dental casting investment material: Type 2
(for the production of complete or partial dentures or other removable restorations), Class 1
(recommended for burning out during slow or gradual heating up)

Safety instructions

Please read and follow the instructions in the insert

“Safety instructions and general instructions for BEGO investment materials”! This material contains quartz which causes lung damage when breathed in during prolonged or repeated exposure. We recommend suitable protection measures such as sufficient ventilation and wearing a PF2 protective mask.

General instructions



- Liquid: BegoSol® (storage and transport temperature: -10 °C to +35 °C / 14 °F to 95 °F)
- Before mixing, rinse out the clean mixing bowl with water and wipe off.
Mixing bowls that are not clean or are dry withdraw moisture from the investment material!
- Processing width at 20 °C / 70 °F: approx. 2 minutes and 45 seconds.
At higher room temperatures the working time will be reduced!
- Mix the liquid and powder manually using a spatula for 15 seconds.
After that mix for 60 seconds in a mixing unit under a vacuum, as far as possible.
(Processing without mixer: mix for **2 minutes** on the vibrator.)

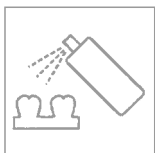
Duplication



- Duplication can be carried out in gel 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.
- Removal: from gel moulds after 45 to 60 minutes, from silicone moulds after 30–60 minutes.

Mixing	Wirovest®	BegoSol®	Aqua dest.	Total liquid	Concentration of liquid
• for gel duplication (<i>Castogel®</i> , <i>Wirodouble®</i> , <i>WiroGel M</i>) – without pressure					
Ratio	100 g			13 ml	
for 2 duplicate models	1 x 400 g	0 ml 21 ml	52 ml 31 ml	52 ml	0 % – 40 % *
• for silicone duplication (<i>Wirosil®</i>) – without pressure					
Ratio	100 g			15 ml	
for 2 duplicate models	1 x 400 g	0 ml 24 ml	60 ml 36 ml	60 ml	0 % – 40 % *
• for silicone duplication (<i>Wirosil®</i>) – with pressure (2–4 bar)					
Ratio	100 g			15 ml	
for 2 duplicate models	1 x 400 g	27 ml	33 ml	60 ml	45 %

* Duplication without pressure: 0 % to 40 % BegoSol®



Surface treatment

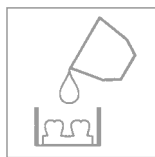
• Duplicate models in gel moulds:		
Drying	<i>DuroI</i> 30 minutes (250 °C / 500 °F)	or <i>DuroI E</i> 45 minutes (150 °C / 300 °F)
Drying	briefly 3 times (approx. 2 seconds)	long 1 time (approx. 4 seconds)
Subsequent drying	5–10 minutes (250 °C / 500 °F)	1 minute (150 °C / 300 °F)
• Duplicate models in silicone moulds:		
Drying	<i>Durofluid</i> 10 minutes (80–100 °C / 180–210 °F)	
Spraying	spray weakly	
Subsequent drying	5–10 minutes (80–100 °C / 180–210 °F)	

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Investment

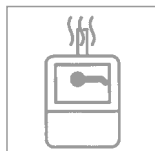


- Before investing, prepare the wax-up with *Wiropaint plus* fine investment material or *Aurofilm* wetting agent (please follow the processing instructions for the products).
- Fill mould ring on the vibrator. Then remove immediately from the vibrator.
- Setting time: at least 30 minutes.

Mixing	Wirovest®	BegoSol®	Aqua dest.	Total liquid	Concentration of liquid
Ratio	100 g			15 ml	
for 1 mould	1 x 400 g	0 ml 18 ml	60 ml 42 ml	60 ml	0 % 30 %*

* 30 % BegoSol® prevents cracks in the mould, which may occur due to rapid heating.
As a rule, distilled water is used for mixing.

Preheating



Insertion temperature	Room temperature
Holding levels	250 °C/500 °F (5 °C/min/9 °F/min) 570 °C/1060 °F (7 °C/min/12 °F/min) } (Heating rates only applies to furnaces with computer control)
Final temperature	950–1050 °C (1740–1920 °F)
Holding times	30–60 minutes (depending on the size and number of moulds)

After casting



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 contains quartz. Do not inhale dust! Danger of lung 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.

Processing time at 20 °C / 70 °C approx. 2 min 45 s

Total expansion in the mould
(40 % BegoSol®) approx. 2.3 %

Data



Characteristic material values in accordance with DIN EN ISO 15912 (40 % BegoSol®)

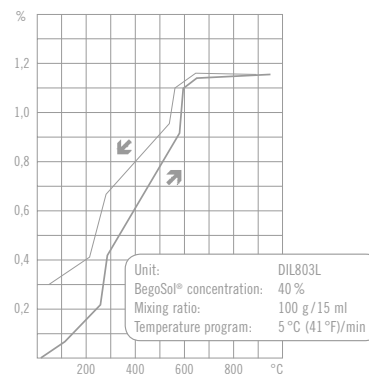
Beginning of setting (Vicat time) approx. 5 min

Compressive strength (after 2 hours) approx. 15 MPa

Linear thermal expansion approx. 1.15 %

This product was manufactured according to the specifications of DIN EN ISO 15912 and meets its requirements.

Thermal expansion curve Wirovest®



BEGO thermal analysis (dep. Development Material)

Availability and recommendations



Wirovest®	1 carton	6 kg = 15 pieces 400 g bags	– REF 51057
	1 carton	18 kg = 45 pieces 400 g bags	– REF 51046
BegoSol®	1 bottle = 1000 ml		– REF 51090
	1 canister = 5000 ml		– REF 51091

<i>Castogel®</i>	52052 (6 kg)	<i>Wirosil®</i>	52001 (2 kg)	<i>Durol E</i>	52148 (1000 ml)
<i>Wirodouble®</i>	52050 (6 kg)	<i>Wirosil® plus</i>	54854 (2 kg)	<i>Durol</i>	52111 (1000 ml)
<i>WiroGel M</i>	54351 (6 kg)	<i>Wirosil® duplicating flask system</i>	52072 (small)	<i>Durofluid</i>	52008 (100 ml)
			52083 (large)	<i>Wiropaint plus</i>	51100 (200 ml)
				<i>Aurofilm</i>	52019 (100 ml)

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Whether given verbally, in writing or by practical instructions, our recommendations for use are based upon our own experience and trials and can only be considered as standard values.
Our products are subject to a constant further development. Therefore alterations in construction and composition are reserved.

