



SILADENT

Dr. Böhme & Schöps GmbH



The System

Model creation
Duplicating
Investing
Casting

GRANISIT®

Description:

Granisit® is a phosphate-bonded, graphite-free precision investment for use in CrCo and crown and bridge work. It is recommended for non-precious alloys.

Technical Data:

Mixing liquid	SILADENT type 100 expansion liquid
Mixing ratio, Powder : liquid	100 g : 15 ml
Mixing under vacuum	30-40 sec.
Working time	3-5 min.
Working temperature	17°C-19°C
Initial setting time complies with DIN 13919-B	6-8 min.
Setting expansion complies with DIN 13919-B	approx. 0.75% (75% diluted type 100 liquid)
Recommended storage	8°C-12 °C in a dry place

Casting models:

Smear Vaseline on the inside of the overlapping section of the duplicating sleeve to prevent cracking. Measure the required amount of investment and the correct concentration of expansion liquid according to the mixing ratio for Casting models. Mix manually with a spatula before vacuum mixing for 30-40 seconds. Use increased vibration for pouring the contours. An instrument is useful for this. Switch off the vibrator and pour the rest of the model.

When duplicating models with silicone, it is unnecessary to harden and soak the models.

When duplicating models with gel, reduce the powder : liquid ratio to 100 g : 14 ml. The liquid concentration should be approx. 5 % above the liquid table of the described standard recommendation.

Use of pressure:

Investing under pressure is not necessary due to Premium's extremely homogenous grain distribution. If investing under pressure is preferred, the pressure should be released after 6 minutes so that it does not impede the setting expansion.

Investing:

Measure and mix Granisit® according to the above instructions. For investing use the same liquid concentration as for the casting model. A small reduction of the liquid concentration may improve the connecting of the model and investing. Pour using minimum vibration until the pattern is completely covered. Switch the vibrator off, fill the ring and do not vibrate again. A setting under pressure is not necessary. The preheating can start after 60 minutes.

Crown and bridge work:

Granisit® is suitable for investing without a casting ring. Use Siladent silicone sleeves. Mix the investment according to the instructions and fill the ring quickly using minimum vibration. Granisit® is also suitable as a die material for firing porcelain using the direct method.

Recommended preheating curve:

Temperature	Rate of increase	Holding time
Up to 270°C	2°C per minute	40 minutes
270°C - 580°C	5°C per minute	30 minutes
580°C - casting temp.*	9°C per minute	30 minutes

* Recommendation: CrCo or fixed/removable appliances 920°C-950°C

Concentration of the expansion liquid:

CrCo framework with clasps, non-precious metal 75%
75 parts SILADENT type 100 expansion liquid
25 parts distilled water

Fixed/removable work, non-precious metal 85%
85 parts SILADENT type 100 expansion liquid
15 parts distilled water

Crown and bridge work, precious alloy 60%
60 parts SILADENT type 100 expansion liquid
40 parts distilled water

Crown and bridge work, semi-precious alloy 75%
75 parts SILADENT type 100 expansion liquid
25 parts distilled water

Crown and bridge work, non-precious metal 100%
100 parts SILADENT type 100 expansion liquid**

** SILADENT type 140 expansion liquid can be used for greater expansion.

Firing porcelain on Granisit®:

Duplicate the die with Adisil® and mix at least 50 g of Granisit® with a 75% to 90% concentration of expansion liquid (must be tested with porcelain). Heat in a porcelain furnace under vacuum to 650°C and hold for 4 minutes before opening the furnace. The dies do not have to be cooled slowly. Glazing the die gives a smoother surface. Fire according to the porcelain manufacturer's instructions.

Please note:

Technical recommendations are based on tests and findings from work in our development laboratory and can only be regarded as guidelines. SILADENT products are subjected to strict quality controls. We reserve the right to make technical changes.

Caution:

Inhaling silica dust is a health risk. A suitable face mask should be worn.