

SHERAREFRACT

INSTRUCTIONS FOR USE

1. Indication

Material for the production of refractory dies, on which veneers, onlays and inlays are individually layered and fired with dental ceramics.

2. General recommendations

Even tiny residues on the work equipment – including cleaning agents – can have a negative effect on the casting result. Please use the respective spatula and mixing cup only for the processing of phosphate-bonded investment and keep the mixing cup always filled with water after use and cleaning.

3. Safety instructions

Attention: Investments contain quartz! Do not inhale dust. Risk of lung disease (silicosis or cancer). Wear a dust mask! Please use a fine dust mask when weighing and mixing the powder and devesting the muffle.

4. Processing recommendations

Duplicating the dies

When making the model, pay attention to the smallest possible model dies.

For the duplication of the dies, these must first be attached to a duplicating base by using a bit of wax at a distance of about one centimetre from the wall and to each other. We recommend using the SHERADUBLIER-SET.

Use a silicone with a Shore hardness between 17 and 22. We recommend DUOSIL H with a Shore hardness of 17. Duplicate the dies with silicone in a pressure pot at 2.0 to 6.0 bar. When curing the duplicating mould and the refractory dies, ensure that the pressure in the pressure pot is unaltered. After removing the model dies, allow the duplicating mould at least 20 minutes for recovery.

Processing

Processing temperature: 21 - 23°C (powder & liquid)
 Processing Time: 5 minutes
 Mixing ratio: 33g : 6 ml in total

- Weigh the powder in the dry vacuum mixing cup
- Add liquids in the desired concentration
- Recommendation:
 for veneers, onlays:

SHERALIQUID	4 ml
Distilled water	2 ml
- for inlays:

SHERALIQUID	2 ml
Distilled water	4 ml

A change in the ratio of the liquids leads to a change in the expansion:

- more SHERALIQUID = greater expansion, results in larger dies
- more distilled water = lesser expansion, results in smaller dies
- Manually mix it thoroughly for 15 seconds
- Stir under vacuum for 60 seconds (300 rpm, 80%)
- Fill SHERAREFRACT with the lowest level of vibration
- Allow to harden in the pressure pot for at least 30 minutes, at the same pressure as when producing the duplicating mould
- After another 30 minutes, the dies can be removed from the mould.

5. Degassing and sintering

Degassing should take place soon after removal from the mould

- Place it directly at 700°C in the preheating furnace or heat it up conventionally
- hold at 700°C in the preheating furnace for 20 minutes, then hold at 1050°C in the dental ceramic furnace for 5 minutes

6. Tips on ceramic firings

- Before the first coat (Connector / Wash Brand) rinse only the veneer with distilled water until the water arrives on the opposite side. Then apply the ceramics mixed with distilled water as moist as possible and let them sink into the die. Remoisten with distilled water if needed. Before placing in the ceramic furnace, absorb the moisture on the opposite side of the veneering surface with a paper towel.
- Thus, ceramic particles can diffuse into the die and produce a good bond.
- Application and firing of the ceramic materials are carried out according to instructions of the manufacturer of the ceramic material.
- We recommend the following programming of the ceramic furnace
 - Starting temperature of 400°C
 - Dry for at least 6 minutes
 - Close for 9 minutes
 - Preheat for 6 minutes
 - Heat increase rate 30 - 35°C/minute
 - To compensate for the poor thermal conductivity, increase the final temperature if necessary (empirical value 10 - 15°C)
 - Long-term cooling in a closed furnace up to 500°C
- In subsequent firings, the die may be rinsed or moistened with a brush to achieve and maintain the desired level of moisture.

7. Tip for finishing the ceramic

- To finish the ceramic along the edge, rinse the die beforehand!

8. Blasting

- Jet polishing beads 50 µm at 1 bar

9. Storage

Store the powder and liquid dry, the processing temperature is between 20 - 23°C (ideally 21°C in the temperature cabinet). SHERALIQUID is sensitive to cold. When stored or transported below +5°C, the liquid is damaged and should not be used anymore. Shipment of the liquid is therefore often not possible during the winter months. Please prepare a winter supply in good time.

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Keep the investment and its working equipment separate from the plaster processing equipment, as these have a negative impact on each other.

10. Informationen / Feedback:

Further information, mixing tables and safety data sheets are available at www.shera.de.

If you have any questions, please contact our service team. Phone number: +49 (0) 5443 9933 0.

In case of product feedback, please always state the batch name.

11. Guarantee

SHERA Werkstoff-Technologie GmbH & Co. KG is certified according to DIN EN ISO 13485 and guarantees for the products, due to a thorough quality control system, a flawless quality of its products. Our instructions for use are based on the results of our test laboratory. The technical data given can only be guaranteed if the processing is carried out as mentioned. The user is self-responsible for processing of the products. We are not liable for faulty results as SHREA has no influence on the processing. Nevertheless, possibly arising claims for damages relate to the value of the products only

