

Friction renewal

of worn telescopic cases

Accurate, functional and time tested



The problem

Which dentist doesn't know this problem: A telescopic case – where the patient probably had to pay quite some money himself/herself – has lost its original friction in the course of time.

But which possibilities are available that ensure a suitable repair of the high-quality dental restoration within no time and nevertheless affordable for the patient?

The realization

The most elegant method to restore the friction is definitely the direct deposition of an electro-plating material into the outer telescopic crown. For this, the GAMMAT® optimo2 system uses the advantages of the electroforming technique: Its sensor-controlled deposition and the unique hydrodynamics guarantee a homogeneous layer formation.

A pre-gold-plating layer of only a few tenths of a micrometer are sufficient to achieve a safe bonding compound between the casting alloy of the outer telescopic crown and the 24K gold of the friction layer.

The application of a circular gold layer inside the outer telescopic crown takes place in an electroforming process where the duration depends on the number of telescopic crowns and on the thickness of the deposition layer. A thickness of 5, 10 or 15 µm is possible.

Due to the homogeneity of the gold layer applied, the telescopic crowns go smoother again; i.e. the renewed friction functions again.

The small amount of electroforming gold required keeps the costs low.

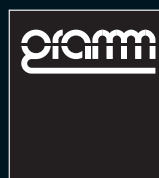
If possible, the patient should stay at the dental lab for checking purposes until the friction renewal is finished.

The conclusion

Finally, it's safe to say that the friction renewal method developed by the Gramm Technik Company is the most elegant technique by far. Not only that it uses a high-quality material, but it even ensures the targeted application of gold – allowing the use of the word friction at all while in the majority of the other systems it can only be talked about tilting or wedging. Furthermore, this system now benefits from a practical experience of more than 10 years providing consistently positive results and a favourable long-term prognosis.

The Gramm friction renewal is suitable for secondary parts out of

- non-precious alloys
- precious metal
- electroforming gold





1
Carefully clean the worn telescopic denture having insufficient friction.



2
Cover all surfaces that are not to be electroformed with a covering lacquer or with Galvanowax.



3
The thus prepared denture is fixed with a rubber band at the bracket and then contacted to the plating head.



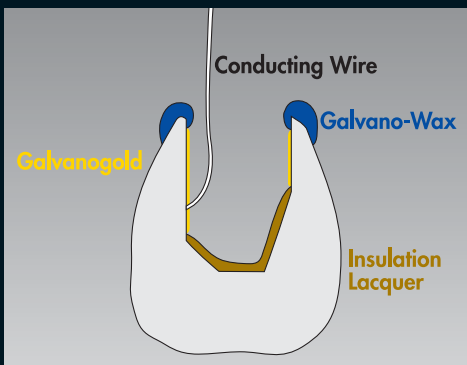
4
Contact to the telescopic crown is provided by a wire.



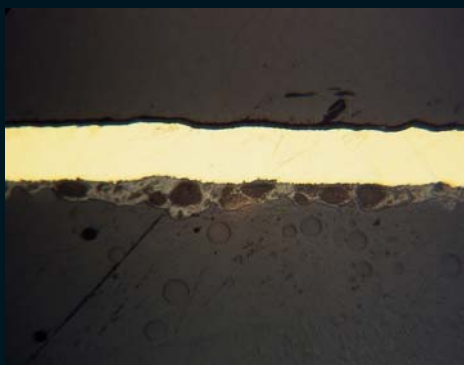
5
All cleaning, rinsing and electroforming processes take place inside the electroforming unit GAMMAT® optimo2.



6
Outer telescopic crown after gold-plating of the friction



7
Schematic diagram of an outer telescopic crown after gold-plating of the friction



8
Cross section: A homogeneous and closed 24K gold layer ensures long durability.



9
The finished denture with shiny golden outer telescopic crowns and a perfectly restored friction

Friction renewal by electroforming may be provided by:



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