

## Basic principles of thermoforming:

- The **models** should consist of **stone** (class 3).
- For thermoforming the **stone** can contain residual moisture but **must not** be **wet**.
- For a good adaptation the **stone** must be **permeable to air**, especially stones for the orthodontic field do not always ensure this. Like when using plastic models or varnished models that are impermeable to air, this leads to incomplete adaptation because in most cases air cannot escape completely between the model and the foil.
- The removal of hard materials very often leads to a **break of models**. The use of super hard stone does not solve this problem, it is better to thermoform on a duplicated model.
- It is useful to **embed the models** for thermoforming as far into the **high grade steel granules** that only the area that has to be thermoformed plus 3 mm is visible.
- The **granules** allow a **quick adaptation** of the thermoforming materials and a very simple limitation of the model height.
- When working on the **model disc** ensure that the **model base** is **trimmed flat**.
- **Model preparation:** Areas of the model (exterior vestibulum, oral floor) which obstruct the thermoforming process have to be removed. Remove sharp plaster edges.



Fill narrow gaps between the teeth with Erkogum (110 844).

Remove positive plaster bubbles.

Fill negative plaster bubbles and small defects with blocking out wax (725 080).

If the splint covers the gingival margin, relieve it with Erkoskin (625 050).

When there are large undercuts, mark the prosthetic equator to limit the height.

- The adaptation of thermoforming materials always means a **stretching** respectively a thinning of the original material thickness. A rough orientation is: **1 cm model height corresponds to 20 - 25 % loss of thickness**. For this reason it is expedient to embed the models into the granules.
- All **Erkodent thermoforming materials** are **physiologically harmless**, they are listed by the Health Authorities and are CE marked according to the EC directives (93/42/EEC).
- Pay attention to the regulations for operational safety.

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