

Materials & Accessories

Fabrication:

- Erkoflex, flexible, transparent and coloured, 2.0 and 4.0 mm
- Erkodur-S, hard, 0.8 mm as hard insert for sports mouthguard heavy-pro and light-pro
- Degreasing agent (613 050)
- Alginate based insulation
- Commercially available fusing gun, ≥ 500 W with screw-top (special top for fusing gun 177 010)
- Erkoflexsticks-95/-82 (177 006/177 005)
- Cover templates (110 900)

Model preparation:

- Erkogum (110 844) for blocking out, high-fusing wax (725 080) for filling bubbles in the plaster.

Finishing:

- Finishing set Quick 3 (110 830)
- Special scissors XL (220 301)
- Hot air burner (177 540)
- FG sheets (177 400)

Hints

- For an optimum mouthguard the upper jaw model should represent the vestibulum completely.
- For determining the bite situation, ideally a construction bite (prebite Dott. Pelosi up, 85 10 16) with a spacing of 4 - 5 mm should be available.
- If the model is insulated, the insulating material must be washed off before using the hot-air burner in order to avoid black stains.
- If Erkoflex transparent shall be used as second layer, remove the insulating foil before thermoforming.
- With **Playsafe 4u** almost each favorite design on all Playsafe triple types and on Erkoflex based sports-mouthguards is possible (www.erkodent.com).

Sport mouthguard types:

light:

Erkoflex 2.0 mm + Erkoflex 2.0 mm

medium:

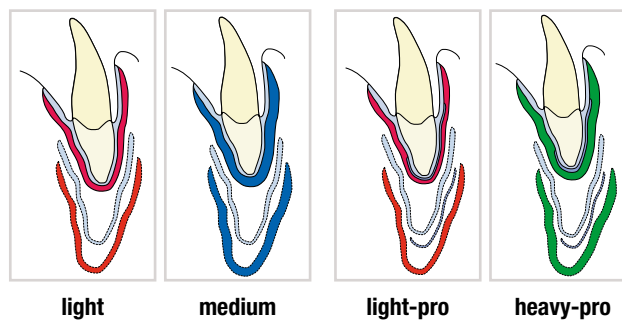
Erkoflex 2.0 mm + Erkoflex 4.0 mm

light-pro:

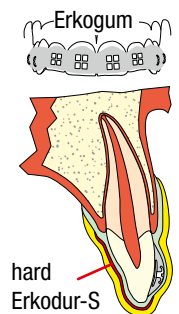
Erkoflex 2.0 mm + Erkodur-S 0.8 mm + Erkoflex 2.0 mm

heavy-pro:

Erkoflex 2.0 mm + Erkodur-S 0.8 mm + Erkoflex 4.0 mm



Heavy-pro can for a short period of wear also be fabricated for patients with brackets. Impression without wiring, block out bracket and wire area with Erkogum.



A sports-mouthguard is always fabricated for the upper jaw. To protect the root zone, it covers as much as possible of the vestibulum.

1. Model preparation: Fill plaster bubbles with blocking out wax. Block out undercuts of a possible gap (special case) with Erkogum.

2. Embed the model in a way that the entire vestibulum remains visible.

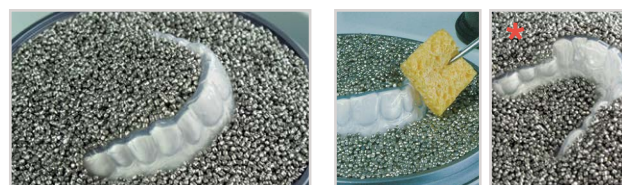
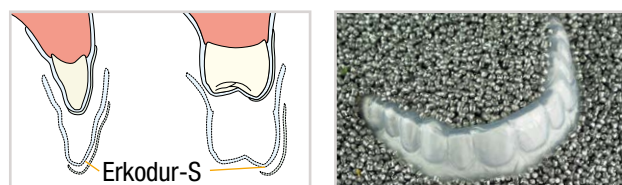
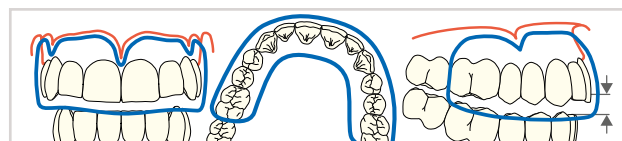
4. Special case: On the first layer the gap is filled with Erkoflexsticks-95/-82 (fusing gun). Smooth applied stick material with Liskosil-I.

6. - 11. only light-pro / heavy-pro:

The hard Erkodur-S (0.8 mm) completely covers the vestibular area and just barely the incisal edge and the vestibular/buccal edge.

8. Degrease visible area (degreasing agent 613 050, ensures a reliable bond of the layers).

10. Take the foil compound off the model and roughly cut out with the scissors.



The sports-mouthguard covers the first molar.

The increase of occlusion is 4 - 5 mm at the incisal point. In most cases the blockage is done on average values.

3. Always thermoform the first layer (Erkoflex 2.0 mm) together with the ex works applied insulating foil and allow to cool down. Cut out with special scissors, leave everywhere a little bit longer as the final mouthguard.

5. Do not attach type labels near to the fraenulums. The labels are readable from the inside. For a transparent sport mouthguard there are labels available that are readable from the outside.

7. Embed model with the first layer into the granules, only the area of the later hard Erkodur-S layer plus 2 mm remain visible.

9. * Position of the hard layer at patients with vestibular brackets.

Additionally degrease the side of the Erkodur-S that has to be applied onto the first layer and thermoform.

11. First with the tungsten carbide bur, then with Liskosil-I grind and smooth the hard protruding edge.

The limitation of Erkodur-S is visible as a line. Reput the first layer onto the model and ...

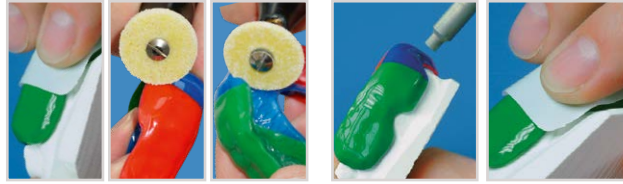
12. Without Occluform/-3: ... embed the model (2) and apply a cover template. Well degrease first layer(s) and the model side of the second plate. Pay attention to the alignment of model and multi-coloured plates.



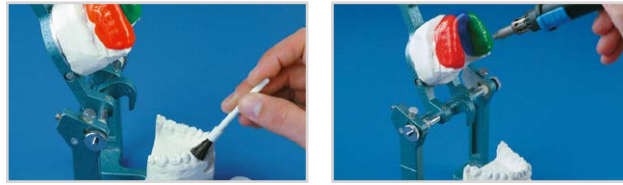
14. Cut out the mouthguard with special scissors as per the extensions described formerly, exposing the area around the fraenulums well.



16. ... in case of larger air pockets press on with a FG-sheet. Smooth with Liskosil-/l and narrow spaces with Liskosil-/m (10 000 rev/min). Inner side only with Liskosil-/s.

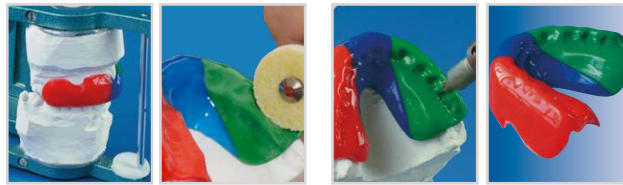


18. Imprint opposing bite in the articulator: Fix model with the worked mouthguard in the articulator. Block 4 - 5 mm with the supporting pin. Insulate opposing bite with alginate based insulation (lower jaw teeth).



20. Make imprint of the opposing bite and allow to cool down.

For a much better wearing comfort grind away the details of the impression with Liskosil-/l whilst retaining a vestibular wall.

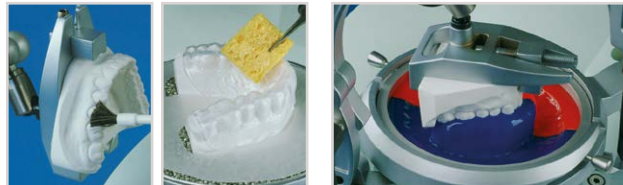


22. With Occluform-3: Imprint the opposing bite during thermoforming: *

Fix the model in the model pot that high that the first layer can be put back onto the model.



24. Insulate the opposing bite with alginate based insulation (colourless). Cover the granules with a cover template. Degrease well the first layer and the model side of the layer.



26. After cooling down open the Occluform and take out the model together with the model pot.

Finish as described in step 13 - 17.

Pay attention to the cleaning and maintenance instructions.



13. Take the foil off the model, then firstly remove the cover template, secondly the insulating foil.

15. Roughly work out with the tungsten carbide bur (> 20 000 rev/min) and repute the mouthguard onto the model. Heat the cut-open air pockets with the hot-air burner and seal with the blunt end of a wax knife or ...

17. Reput onto the model and shine with the hot-air burner, thereby do not remain for too long in one position. The hot surface can be smoothed and polished by shortly pressing on the FG-sheet.

19. Heat occlusal surface of the mouthguard. Thereby stroke the hot-air burner slowly about 20 times over the occlusal surface.

21. Heat occlusal surface one more time and close the articulator.

Finished sports-mouthguard.

Pay attention to the cleaning and maintenance instructions.

23. Articulate the models with a construction bite in the Occluform or, like shown here, at average values* by lifting the supporting pin at 3 - 4 scale-lines and arrest the joint.

*only Occluform-3

25. Thermoform the second foil and immediately close the Occluform until the supporting pin gets contact.

* The imprint can also be made using the bite spacer according to the Playsafe triple instructions.

27. Finished sports-mouthguard.

With **Playsafe 4 u** almost each favorite design on all sports-mouthguard types is possible (www.erkodent.com).

Playsafe readaptation, a laminated sports mouthguard can be easily readapted to a changed dentition. Please ask for the instructions or find under www.erkodent.com > Service/Download > Instructions

Instructions for cleaning and maintenance

- Best results are achieved with **Oxydens** cleansing tablets for dental splints (280 030, Oxydens Clean-set, 280 032, 32 cleansing tablets). Further cleaning agents: Soap, curd soap, liquid soap and dish-washers. Do not use any strongly perfumed soaps. Not suited are: tooth-paste (contains abrasive particles), mouth-wash (can cause discolouring) and water that is hotter than 50 °C (deformation). Solvent-based cleaning agents cause delamination of multi-layered splints.

After use: Wash well with water. • Best is to thoroughly clean the inner and exterior side of the splint with a tooth brush and soap.

- Again, wash well with water. • Shake off the water or dry with a towel, never blow-dry - deformation!
- Very important: Allow the splint to completely dry! Keep at a dry place, at best in a box like the Erkobox (215 030) or Splintbox (214 020) that has aeration holes. • Again, wash with water before using it.