



BIOSTAR®



MINISTAR S®



Perfection is offering unlimited solutions.

Application booklet for pressure moulding technique
with indication examples and technical information

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On our website www.scheu-dental.com you will find videos on various applications described in this manual.

► SCHEU-ACADEMY.

GENERAL HINTS

We have written this manual to give you a general view of the various application techniques for our pressure moulding machines. Each chapter is divided into working steps with pictures to quickly understand and realise by yourself the shown application examples with your pressure moulding machines. With little variation, you will be able to apply these techniques to make a wide range of applications. With only slight variations, this manual is applicable for all BIOSTAR®, MINISTAR® and MINISTAR S® machines.

Since 1988, temperature, heating and cooling time in BIOSTAR® pressure moulding machines are programmed via keypad, barcode scanner or manually and precisely controlled and monitored. For best heating and pressure moulding results we recommend to use our barcode and material codes respectively. You may also program individual codes or heating times.

When working with the MINISTAR S® the recommended heating times are pre-programmed and controlled by optical and acoustic means. At the same time, the corresponding cooling times are programmed automatically.

When working with the MINISTAR® machine, after having heated up for 90 sec. the recommended heating and cooling times are controlled by means of the built-in timer; tolerances of ± 5 sec. are to be taken into account.

When working with BIOSTAR® machines of series I and II, after heating up the infrared heater for 15 min. the actual heating and cooling time recommendations have to be controlled by means of an external timer. Tolerances of ± 15 sec. have to be taken into account.

Machine type	Construction year	Dimensions of material		Thickness of material mm / inch	Working pressure bar / psi
		mm / inch ○	mm / inch □		
BIOSTAR® I	1967–1978	125 / 5"	125 X 125 / 5" X 5"	0.1–3.0 / .0040-.12"	5.0 / 72
BIOSTAR® II	1978–1988	125 / 5"	125 X 125 / 5" X 5"	0.1–3.0 / .0040-.12"	5.0 / 72
BIOSTAR® III	07/88-03/99	125 / 5"	125 X 125 / 5" X 5"	0.1–4.0 / .0040-.16"	5.0 / 72
BIOSTAR® IV	from 04/1999	125 / 5"	—	0.1–5.0 / .0040-.20"	5.0 / 72
BIOSTAR® V	from 10/2005	125 / 5"	—	0.1–5.0 / .0040-.20"	6.0 / 87
BIOSTAR® VI	from 07/2009	125 / 5"	—	0.1–5.0 / .0040-.20"	6.0 / 87
MINISTAR®	from 04/1992	125 / 5"	—	0.1–5.0 / .0040-.20"	2.5-3.0 / 35-42
MINISTAR S®	from 08/2003	125 / 5"	—	0.1–5.0 / .0040-.20"	3.0-4.0 / 42

GENERAL HINTS

Working models

Models should be poured with regular dental plaster. If you are using **hard elastic** foils and have undercuts on the model, deformations of the foil and breakage of teeth are possible. Therefore it is generally recommended to use a **duplicate model**. In case of **hard elastic foils** and if only parts of the model are moulded (eg. splints), the model should be embedded in **pellets** in order to avoid overstretching the foil. If **soft elastic foils** are used, the trimmed and insulated models should be placed on the working platform.

Working pressure

Optimal precise moulding results can be achieved with a working pressure of 5-6 bar with the BIOSTAR® and with the MINISTAR® and MINSTAR S® with 3 bar. The pressure is adjusted in our factory and should not be increased, because higher pressure does not create more precision. Loss of pressure, which may occur by perforation of thinner foils in the areas of pellet embedding, won't affect the quality of the appliance, if the loss of pressure doesn't exceed 1-2 bar and enough compressed air is supplied.

Materials

The materials can be divided in 3 main categories:

1. Hard elastic foils

BIOCRYL® C and BIOCRYL® M belong to this group – acrylic plates without monomer – in clear-transparent or coloured for dentures and orthodontic plates; well bonding to acrylic. DURAN® is a high transparent and abrasion-resistant material for all indications in the splint therapy. IMPRELON® in clear or opaque is suitable for temporary use in the mouth, e.g. custom trays, dressing carriers or bite plates.

2. Hard/soft compound foils

DURASOFT® is a transparent sandwich material for splints with a soft inner side for extremely convenient wearing, especially comfortable for snoring devices.

3. Soft elastic foils

BIOPLAST® is such a foil – clear transparent, coloured or multi-coloured for soft remaining splints, mouthguards and positioners or duplicate models as well as BIOPLAST® bleach for bleaching. A similar application is covered by COPYPLAST®, which is a little bit tougher, and may be used for bleaching splints as well. The transparent and tough elastic COPYPLAST® C is used in orthodontics for aesthetic adjustment and retention splints.

The natural-coloured HARDCAST® and COPYPLAST® foils, in combination with the transparent spacer foil, are used for the fabrication of copings as well as space holders when fabricating bleaching and fluoride splints. Our line of material is completed by the insulation foil ISOFOLAN® as isolation and the coating foil used as a protection “cover” when shipping models.

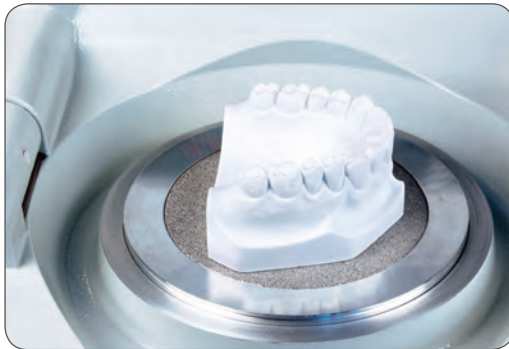
Model duplication

List of Materials:

BIOPLAST® 2.0/3.0 mm for plaster situation model
COPYPLAST® 1.5/2.0 mm for resin situation model



1 Insulating and embedding



Trim the bottom of the model flat and soak shortly in water. Place the plaster model on the platform.

2 Pressurizing



Heat the foil by setting the code or recommended heating time according to the instructions. Close the pressure chamber and open after cooling phase has finished. The moulded duplicating form should not be trimmed to keep it stable.

3 Finishing



We recommend to pour in plaster and suspend the mould in a mixing bowl filled with water, in order to reduce any deformation to a minimum extent due to the weight of the plaster. Nevertheless, as deformations may still occur, these duplicates can only be used as situation models in orthodontics.

Hints:

COPYPLAST® should only be used for models with stable teeth and small undercuts.
BIOPLAST® moulds are not suitable for pouring resins.

Individual tray Functional tray



List of Materials:

IMPRELON® clear 2.0/3.0 mm
IMPRELON® opaque 3.0 mm
Blocking-out putty/SIL-KITT
Foam disks
STEADY-RESIN
Finishing Set

1 Insulating and embedding



Block out undercuts and single teeth with blocking-out putty. Embed the model up to the fold, so that the model parts which shall be moulded are above the model cup rim. Fill up model cup with pellets up to the upper rim and make sure the edges of the cup are clean.

2 Pressurizing



Heat the material by setting the code or recommended heating time according to the instructions. Place the moist foam (approximately 1 cm thick) serving as a space maintainer for the impression material and roughening the surface of the tray over the model. Depending on the requested space, up to 3 layers of foam can be used. Close the pressure chamber and open after cooling phase has finished.

ATTENTION:

Make sure the edges of the cup are free from foam material.

3 Finishing



Remove the foam space maintainer from the tray. Excess material is removed with a cutting bur (REF 3214) or with carbide cutter (REF 3369). Finish with fine carbide bur (REF 3370). The impression tray is heated over flame and adapted to the ridge. Final fixing of the handle to the tray is done with STEADY-RESIN or similar cold cure resin.

Bite registration tray



List of Materials:

IMPRELON® white 2.0/3.0 mm
Blocking-out putty
Cutting bur
Finishing Set

1 Insulating and embedding



Block out undercuts and single teeth with blocking-out putty. Embed the model up to the fold, so that the parts of the model which shall be moulded are above the rim of the cup. Fill up the model cup with pellets to the upper rim and make sure the edges of the cup are clean.

2 Pressurizing



Heat the material by setting the code or recommended heating time according to the instructions. Close the pressure chamber and open after cooling phase has finished. Remove moulded bite plate from the model. Cut off excess with cutting bur (REF 3214) or HM carbide cutter (REF 3369).

3 Finishing



Finish with HM carbide bur (REF 3369). Drill retentions in the tray, put the wax on it and fill the space between wall and tray with liquid wax.

Mould for Temporary Crowns and Bridges

List of Materials:

COPYPLAST® 0.5 mm (single crown)
COPYPLAST® 1.0-2.0 mm (bridges)
Finishing Set
Orthodontic insulating agent



1 Insulating and embedding



Trim the model flat and break sharp edges.
Soak shortly and place it on the model platform. If models should be embedded in pellets, take care that the parts of the model to be moulded are above the model cup rim; when using COPYPLAST® 0.5/1.0 mm air may pass through the foil caused by the pellets.
Spaces can be filled with artificial teeth.

2 Pressurizing



Heat the foil by setting the code or recommended heating time according to the instructions.
Close the pressure chamber and open after cooling phase has finished. Cut the foil distally directly on the model with scalpel or scissors, remove it carefully and cut it to desired size. Fill mask with veneer resin; in case of direct temporaries polymerize at the patient, in case of indirect temporaries polymerize on the plaster model.

3 Finishing



For single crowns press a COPYPLAST® foil over the model and cut off as a coping. For the fabrication of individual strip crowns DURAN® 1.0 mm can be used.

Hints:

Fix pouring mask on the model before polymerization (with wax or rubber ring).
COPYPLAST® does not need any special insulation, showing a nearly completely polished acrylic resin surface.

Temporary splint



List of Materials:

DURAN® 0.75-1.5 mm (depending on extent)
ISOFOLAN® foil
Medical adhesive (SD-CYANO VENEER Fast,
CA®-CYANO VENEER Fast)
Finishing Set

1 Insulating and embedding



Trim the model flat and place it on the model platform. Press ISOFOLAN® foil over the model and cut off foil at the model bottom. For space closure put in plastic teeth and fix basally with sticky wax.

2 Pressurizing



Embed model in pellet, so that the parts of the model to be moulded are above the model cup rim, respectively the teeth should stand vertically to the foil to be pressed on. Fill up model cup with pellets to the upper rim and make sure the edges of the cup are clean. Heat the foil by setting the code or recommended heating time according to the instructions.

3 Finishing



Cut the plate radially resp. cut roughly below the moulded part, remove carefully from model and finish to exact length.

Hints:

Besides mechanical retention, the plastic teeth may be moistened with medical adhesive (e.g. SD-CYANO VENEER Fast) before pressure moulding DURAN® for additional chemical compound.

Temporary plate Partial denture



List of Materials:

BIOCRYL® C rose clear 2.0 mm for upper jaw
BIOCRYL® C clear 3.0 mm for lower jaw
ISOFOLAN® foil
BIOCRYL®-RESIN
Finishing Set

1 Insulating and embedding



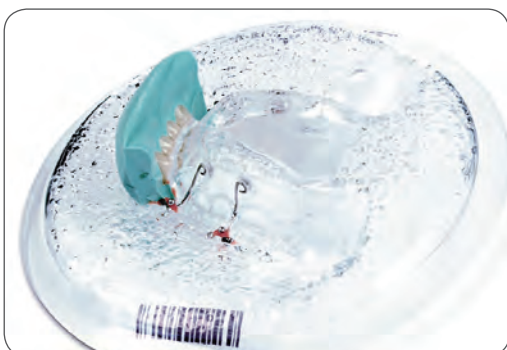
Press an ISOFOLAN® foil over the model and cut the foil at the model bottom. Perforate ISOFOLAN® foil interdentially in order to avoid air bubbles. Fix clasps buccally with wax on the ISOFOLAN® foil and fix teeth with prepared plaster wall on the model. Embed the model up to the incisal resp. occlusal areas in pellets. Fill up model cup with pellets to the upper rim and make sure the edges of the rim are clean.

2 Pressurizing



Heat the foil by setting the code or recommended heating time according to the instructions. During the last 20-30 sec. of the heating time put BIOCRYL® resin under the teeth and the clasp retentions. Close pressure chamber and open after cooling phase has finished.

3 Finishing



Remove BIOCRYL® C from the model. Cut off excess with cutting bur (REF 3214) or HM carbide bur (REF 3369). Finish with HM carbide bur fine (REF 3370) or finishing bur (REF 3377). Polish as usual.

Hints:

If bigger saddles should be fabricated, prepare the buccal parts with cold cure resin before pressure moulding. Rough teeth mechanically or chemically for better bonding.

Drilling/X-ray template for Implants

List of Materials:

DURAN® 2.0-3.0 mm
ISOFOLAN® foil
Cutting bur and HM carbide bur



1 Insulating and embedding



Duplicate the model formed with wax-up, smooth occlusal resp. incisal areas, pierce holes for 2,35 mm titanium pins and place pins. Trim the model flat and place it on the model platform, then press ISOFOLAN® foil over the model. Open after cooling time has finished and cut off foil at the model bottom and in the area of the intended implants.

2 Pressurizing



Embed model in pellets, so that the model parts which shall be moulded are above the model cup rim and fill pellets up to the rim. Heat the foil by setting the code or recommended heating time according to the instructions and open after cooling phase has finished.

3 Finishing



Cut the plate radially, remove it carefully and cut with bur to exact length. Cut out titanium pins from the top. OPGs (orthopantograms) use splints with movable pins. After removal of pins the splint can be used as a drilling template for the pilot bur.

Hints:

With titanium X-ray measuring pins you receive more precise outlines than with steel balls. For better mobility in the X-ray template, the pins can be polished after removing.

Bleaching splint



List of Materials:

BIOPLAST® bleach 1.0 mm or
COPYPLAST® 1.0/1.5/2.0 mm or
BIOPLAST® 1.0-3.0 mm
BLUE-BLOKKER® (space maintainer)

1 Insulating and embedding



Mark the areas you want to bleach by a pencil. Trim the model flat and place it on the model platform. Apply BLUE-BLOKKER® serving as a space maintainer in the desired layer thickness.

2 Pressurizing



Place reduced model on the platform resp. embed complete model in pellets and fill up cup to the upper rim. Pressurize BIOPLAST® bleach, COPYPLAST® or BIOPLAST® depending on the desired stability and model size.

3 Finishing



Cut the foil radially, remove carefully from model and cut to exact length.

Hints:

The light curing blocking-out material BLUE BLOKKER® can be applied easily and precisely in the desired layer thickness. Following the same procedure, you may as well fabricate medical trays.

Fluoride splint



List of Materials:

BIOPLAST® 1.0-3.0 mm (space maintainer)
BIOPLAST®-Insulating agent
DURAN® 1.0-1.5 mm

1 Insulating and embedding



Mark the areas you want to fluoride with a pencil and moisten with BIOPLAST®-Insulating agent. Place flat trimmed model on the platform. Place a BIOPLAST® foil of the desired thickness and heat by setting the code or programm the recommended heating time. Open after cooling phase has finished. Cut off space maintainer according to the marked areas and perforate occlusally by means of a sharp point, ie. probe, scalpel, in order to create space for a support.

2 Pressurizing



Put prepared space maintainer on the model. Place reduced models on the platform resp. embed complete models in the pellets and fill up model cup up to the upper rim. Fix a foil of DURAN® in the desired thickness and heat by setting code or according to the recommended heating time. Close pressure chamber and open after cooling phase has finished.

3 Finishing



Cut the foil radially and remove it carefully from the model. The pressure moulded space maintainer made of BIOPLAST® won't bond to DURAN® and can be removed easily. Then proceed with finishing.

Hints:

BIOPLAST®-Insulating agent should be applied only to the desired extent of the splint. The perforation by means of a sharp point should be done in the areas of the most projecting cusps.

BRUX CHECKER®

Bruxism analysis

List of Materials:

BRUX CHECKER® foil



1 Insulating and embedding



Place upper or lower arch on the model platform resp. embed complete upper or lower model in the pellets and fill up model cup to the upper rim.

2 Pressurizing



One side of the BRUX CHECKER® foil is colour coated. By scratching the foil margin you can verify the correct fixing of the foil. Heat according to the recommended heating time. Close pressure chamber and open after cooling phase has finished.

3 Finishing



Cut foil radially and remove carefully from the model.

Hints:

When heating the BRUX CHECKER® foil take care that the material won't be overheated. 10-15 sec heating time will be sufficient when working with machines of older series (MINISTAR® and BIOSTAR® I-IV), whereas you may heat for 15-20 sec. when working with actual series (MIINSTAR S® and BIOSTAR® V/VI). Please refer to instructions on packaging.



Occlusal splint

TMJ splint, bruxism splint,
functional splint
MINIPLAST splint

List of Materials:

DURAN® 0,5/0,75/1,0/1,5/2,0 mm (hard) or
DURASOFT® pd 1,2/1,8/2,5/3,0/4,0 mm (hard/soft) or
BIOPLAST® 1,5/2,0/3,0 mm (soft)
ISOFOLAN® foil
DURASPLINT® Kit (transparent adjusting material)
Finishing Set

1 Insulating and embedding



Trim the model flat and place it on the model platform. Press ISOFOLAN® foil over the model (insulation as well as space maintainer for comfortable fit of the splint). BIOPLAST® splints should be insulated with BIOPLAST®-insulating agent and a brush. Cut off the foil in the desired extent of the splint with a scalpel and perforate interdentally to avoid air bubbles. Embed the model in pellets up to approx. 4 mm below the cervical margin and fill up the model cup to the upper rim; when using BIOPLAST® the model is always placed on the model platform. Fill missing teeth with plaster or blocking-out putty (REF 3220) to avoid crimps.

2 Pressurizing



Make sure the edges of the cup are absolutely clean. Heat the foil by setting the code or recommended heating time according to the instructions. Close the pressure chamber and open after cooling phase has finished.

3 Finishing



Depending on the kind of material and thickness, trim the splint with a scissor, cutting bur (REF 3214) or HM carbide cutter (REF 3369). Further finishing with the Finishing set. The edges of hard material can be polished as usual. BIOPLAST® foils can be polished with the OSAMU polisher (REF 3247) or thermally with a flame or torch.

Hints:

When fabricating an adjusted functional splint, the splint should be removed from the model only after polymerization of DURASPLINT® for finishing.

The adhesion to the splint is guaranteed by roughening the occlusal surfaces or applying DURASPLINT® monomer to the splint (please also refer to our additional information on DURASPLINT® and the special brochure).

Splint retainer Retention splint



List of Materials:

COPYPLAST® C 1.0 mm (e.g. ESSIX C®)
DURAN® 0.5/0.75/1.0 mm (e.g. ESSIX A®)
ISOFOLAN® foil
HM-carbide cutter
Finishing Set
DIMO® / DIMO®PRO

1 Insulating and embedding



Place the flat trimmed, reduced model on the model platform. When using DURAN® press an ISOFOLAN® foil over the model serving as insulation and cut off the foil at the model bottom with a scalpel. In case of using COPYPLAST® C moisten the model.

2 Pressurizing



Place model on the platform, in case of high models embed in pellets. Heat the foil by setting the code and recommended heating times according to the instructions. Close pressure chamber and open after cooling phase has finished.

3 Finishing



Remove foil carefully and cut to exact length.

Hints:

As ISOFOLAN® foil may bond to COPYPLAST® C, it shouldn't be used as insulation for it. ESSIX A® and ESSIX C® are registered trademarks of Dentsply Raintree Essix.

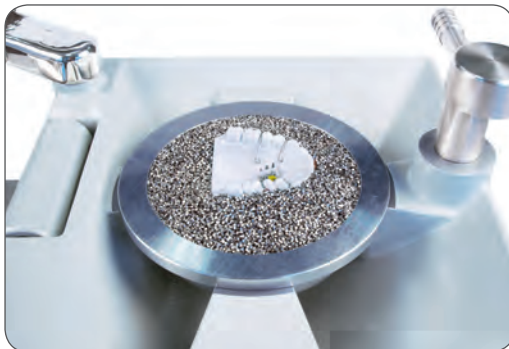
Retainer Expansion plate

List of Materials:

BIOCRYL® C 3.0 mm clear
BIOCRYL® M (multi-coloured designer plates)
ISOFOLAN® foil
BIOCRYL®-RESIN
Finishing Set



1 Insulating and embedding



Bend and adjust clasps without fixing them. Place flat trimmed model on the platform and press an ISOFOLAN® foil over it. Cut off surplus foil on model bottom and perforate interdently with scalpel. Fix clasps buccally with sticky wax. Embed vestibular model parts in the pellets up to occlusal areas. Fill up large lingual undercuts with blocking-out putty (REF 3220).

2 Pressurizing



Heat the material by setting the code or recommended heating time according to the instructions. During the last 20-30 sec of the heating time, put some drops of BIOCRYL® resin on the clasp retentions, close pressure chamber and press heated material over the still liquid acrylic. BIOCRYL® resin will polymerize during the cooling phase in the pressure chamber and will bond to BIOCRYL® C during this procedure.

3 Finishing



For initial trimming use a cutting bur (REF 3214). The clasps and the labial bow are released with the finishing bur (REF 3377). The finishing bur is made of a special soft alloy that won't damage the clasps.

Hints:

You have the option to insert an expansion screw as well.

Bracket transfer Matrix

Lingual technique



List of Materials:

BIOPLAST® 1.0-2.0 mm
BIOPLAST®-Insulating agent
DURAN® 0.75-1.0 mm
Silicone spray (e.g. LOBOSIL)
Water soluble adhesive (e.g. "Unitek™ Laboratory Adhesive")
Set-up separating disk
BLUE BLOKKER®
Set-up wax

1 Intended set-up



For fabrication of duplication model please refer to page 5 (model duplication). Proceed with fabrication of intended set-up with duplication model.

Hints for positioning of brackets on the prepared set-up model:

Apply a few drops of water soluble adhesive at the tooth. Position lingual bracket. Changes in positions can be done with a hot wax knife, inserted in the bracket slot. Avoid too much adhesive between bracket and tooth. Adhesive should dry for 10 min.

2 Pressurizing BIOPLAST®



Fix set-up model with BLUE-BLOKKER®. Apply BIOPLAST®-Insulating agent on the flat trimmed model and place it on the platform. Heat BIOPLAST® by setting the code or the recommended heating time according to the instructions. Close pressure chamber and open after cooling phase has finished.

3 Soaking



Soak model into water to dissolve the adhesive. Remove the foil with brackets from the model and reduce BIOPLAST® with scissors (it should be 2-3 mm longer than the gingival margin).

Hints:

smile dental offers a wide range of bracket adhesives, if the use of a water soluble adhesives is not intended (www.smile-dental.de).

"Unitek™ Laboratory Adhesive" is a product of 3M Unitek (www.3munitek.de)

4 Segmentation of BIOPLAST®



Segmentation of the foil is done tooth by tooth, thus allowing the transfer to the original model.

5 Positioning of segments on the original model



Position the BIOPLAST® single tooth segments on the original model, then proceed with insulating them with silicone spray (e.g. LOBOSIL) or vaseline, so they can be removed easily from the DURAN® foil later. In case of crowdings leave out the corresponding tooth.

6 Pressurizing DURAN®



Embed the original model with brackets in BIOPLAST® segments (refer to picture) and press an ISOFOLAN® foil over it. Heat foil by setting the code or recommended heating time according to the instructions. Close pressure chamber and open after cooling phase has finished.

7 3 tooth segments for transfer



Cut foil radially and remove from model. Proceed with finishing. Extension of the DURAN® foil should be about 2-3 mm shorter than BIOPLAST®. Separate DURAN® in 3 tooth segments, serving as bracket transfer from model to patient.

Hints:

LOBOSIL is a product of MR® Chemie GmbH (www.mr-chemie.de)

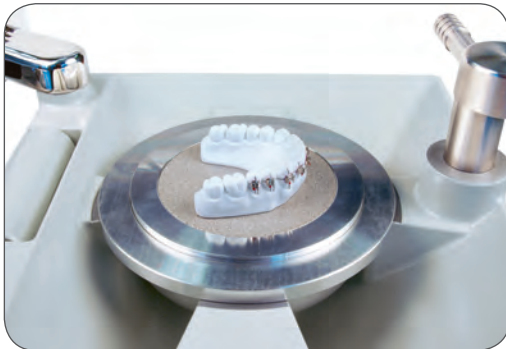
Bracket transfer mask



List of Materials:

COPYPLAST® 0.5/0.75 mm
Caramel or water soluble adhesive
(e.g. "Unitek™ Laboratory Adhesive")

1 Insulating and embedding



Put a drop of water soluble adhesive on the teeth with a probe. Position the bracket. Changes in position can be done with a hot wax knife, inserted in the bracket slot. Avoid too much adhesive between bracket and tooth. Place flat trimmed model on the platform.

2 Pressurizing



Heat the foil by setting the code or recommended heating time according to the instructions. Close pressure chamber and open after cooling phase has finished. Soak model into water in order to dissolve the adhesive. Remove foil and clean residues of adhesives with luke warm water.

3 Finishing



Cut mask with scissors.

Preparing fixing of the brackets:

Perforate incisally with a scalpel, so that surplus adhesive can escape.

Information for dentist/orthodontist:

Apply adhesive to the base (if possible pasty) and insert mask at the patient. Press each bracket with an instrument or finger on the tooth and after the adhesive has set, remove the foil beginning distally.

Hints:

smile dental offers a wide range of bracket adhesives, if using water soluble adhesives is not intended (www.smile-dental.de).
"Unitek™ Laboratory Adhesive" is a product of 3M Unitek (www.3munitek.de)

Adaptation splint



List of Materials:

DURAN® 2.0/3.0 mm (hard) or
ISOFOLAN® foil
BIOCRYL®-RESIN
BLUE-BLOKKER®
Finishing Set

1 Insulating and embedding



Trim the model flat and place it on the model platform. Press an ISOFOLAN® foil over the model. Cut off the foil at the model bottom with a scalpel and cut interdentially small incisions in order to avoid air bubbles. If desired, add wire elements for distal connection and fix distally with BLUE-BLOKKER®. (Cut off ISOFOLAN® foil in this area before.) Embed the model in pellets up to 5 mm under the rim of the gingiva. Fill up model cup with pellets to the upper rim making sure the edges of the cup are clean.

2 Pressurizing



Heat the foil by setting the code or recommended heating time according to the instructions. Put some drops of BIOCRYL® Resin on the retentions of the wire during the last 20-30 sec. of the heating procedure. After heating time has finished, close pressure chamber and press the foil over the liquid acrylic. For rough finishing, you may use the cutting bur (REF 3214). The wire elements can be trimmed out with the finishing bur (REF 3377), made of a soft special alloy that won't damage the wires.

3 Finishing



Cut the plate radially resp. cut roughly below the dental arcade, remove carefully from the model and finish to exact length. Trim out occlusal areas and wires.

Hints:

The working steps described above can be used for manifold modified types of splints depending on the type of case and therapy.

Positioner (2 or 3 layers)



List of Materials:

BIOPLAST® 3.0/4.0/5.0 mm
BIOPLAST®-Insulating agent
Finishing Set
DIMO® / DIMO®PRO
Heating support

1 Insulating, embedding and pressurizing



Apply BIOPLAST®-Insulating agent to working models (upper and lower) – only to those parts which will be covered by the positioner! Trim models flat and place on model platform, then press a BIOPLAST® of the required thickness over the model. Cut surplus material at the model bottom using the finishing set, scissors or scalpel. Cover the palatal and lingual area with a moistened pulp or similar material.

2



Heat both models for about 3-4 min. under the infrared heater using the heating support (REF 3452, distance between occlusal area and heater about 10 cm). Place both models into the articulator or fixator and close appliance slowly. Smooth the lingual area between upper and lower jaw in this plastic state with moistened fingers.

3 Finishing



After about 2 min of cooling, the exterior shape of the positioner can be formed with scissors or scalpel. Unevenness can be levelled by melting BIOPLAST® – before taking out the models. Use scissors resp. BIOPERM trimmer for required corrections of the edges in order to avoid air inclusions.

Hints:

Split cast cuts at the model bottom may cause perforations respectively air may pass through the BIOPLAST® foils, which therefore should be blocked out.

4



Pierce the bimaxillary BIOPLAST® mould with drill bit in the inter-dental space at the papilla from the labial and buccal side – lingual and palatinal form will be finished later. If breathing holes are foreseen, pierce them now into the mould

5



Reset the models in the bimaxillary unit made of BIOPLAST®. For an optimum compound, clean the areas which are to be melt into with lukewarm water and let them dry, avoiding any further contact. Place upper and lower model unit edgewise in the pellets with the occlusal surface parallel to the swivel axis and embed them carefully, i.e covering the model bottom and releasing the distal areas. Swivel the pressure chamber in working position to check whether there is enough space for the two models to all sides, especially to the top. Then press a 2 mm BIOPLAST® sheet over the models. Air release and pressure decrease in the area of the 2nd molars are normal in this case – wait 1 minute before opening the pressure chamber.

6



Cut excess BIOPLAST® material with scissors, scalpel or hot knife. Keep distance from the final edges, lay open distal model sides. Take models out of the BIOPLAST® mould and cut away surplus of material along the contours with scissors – cut interior shape to the final form. Eventually reopen breathing holes from the outside.

7



Smooth the edges with a BIOPERM trimmer – high speed. Finish and polish preferably with DIMO®/DIMO® PRO. Polish the edges with a hot knife or with flame – attention: avoid deformation. When using BIOPLAST® 4.0/5.0 mm the positioner can be fabricated in two layers as well. In this case, after pressure moulding the two models are heated under the heating support and then carefully melt and modelled in the articulator.

Hints:

For an optimum thermal compound of the BIOPLAST® foils, avoid naked flame and any kind of debris (e.g. finger prints, compressed air containing oil) in the melting areas. When fabricating the positioner of 2 layers, for the breathing hole a spacer made of COPYPLAST® can be used which is positioned frontally in the articulator before melting and removed afterwards.

BIOPLAST® XTREME

Mouth guard

List of Materials:

BIOPLAST® XTREME 5.0 mm / BIOPLAST® XTREME DECO
BIOPLAST®-Insulating agent
Heating support
BIOPERM-Trimmer
OSAMU-Polisher
DIMO®PRO



1 Insulating, embedding and pressurizing



Apply one thin layer of BIOPLAST®-Insulating agent only to those parts of the working model which will be covered by the mouth guard. Embed model in pellets with the clear V-shaped part of the BIOPLAST®-Insulating agent covering the desired extension of the front section (e.g. from 3-3). Place pellet cover on pellets. Make sure the foil is fixed with the soft side down and the labels being placed in the direction of the heater. The imprint on the label has to be readable. Heat the foil by setting the code or recommended heating times according to the instructions. Lock pressure chamber and open after cooling phase has finished. Cut foil on model bottom.

2



Warm up the occlusal surfaces under the infrared heater using the heating support. Apply BIOPLAST®-Insulating agent on the antagonist model and put the models into the articulator for counter bite. Cool down with compressed air or water and remove. Polish the edges using the finishing set. If necessary, polish thermally.

3 Finishing



Cut mouth guard to the desired shape. Polish the edges with OSAMU-Polisher or DIMO®PRO wheel.

Hints:

Detailed information on BIOPLAST® XTREME and BIOPLAST® XTREME PRO mouth guard can be found at www.scheu-dental.com/downloads.

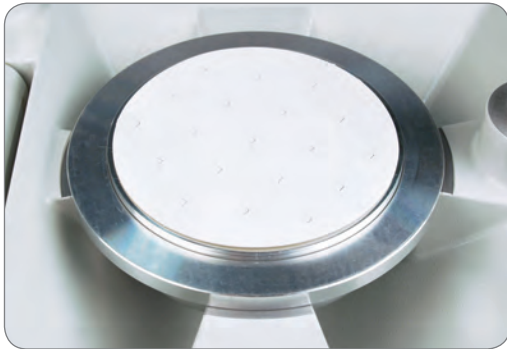
Coating foil Skin packaging

List of Materials:

Coating foil 0.15 mm
Skin packaging



1 Insulating and embedding



Place blister packaging on the model platform.
Position model on blister packaging.

2 Pressurizing



Set the code and heat foil according to the instructions.

3 Finishing



Close pressure chamber and open after cooling phase has finished.
Further finishing is not necessary.

Hints:

If desired, you may include a label with name or address on the blister packaging.



Perfection means having answers.

Our close cooperation with external consultants in the fields of dentistry, orthodontics and materials science allows us to incorporate the latest findings and new ideas in all our production processes. And we are happy to pass these ideas on to you.

For many years the SCHEU-ACADEMY has regularly organised training courses and programmes for dentists and dental technicians – from CA® CLEAR-ALIGNER, CMD and TAP® certification courses to our pressure moulding workshops, which show you practical ways of achieving even more professional results with this technique.



In line with this day and age, our expertise is also available to you as an e-learning course so you can update your skills at any time and wherever you happen to be. The full spectrum of the pressure moulding technique is covered by our interactive course topics, which range from materials science to individual model requirements.

For more information and our course catalogue please visit the SCHEU-ACADEMY section of www.scheu-dental.com.

MINISTAR

MINISTAR 1992-2003



MINISTAR S since 2003



BIOSTAR

BIOSTAR I 1967-1976



BIOSTAR II 1976-1988



BIOSTAR III 1988-1999



BIOSTAR IV 1999-2006



BIOSTAR V 2006-2009



BIOSTAR VI since 2009



More information:

SCHEU-DENTAL GMBH
www.scheu-dental.com

Phone +49 2374 92 88-0
Fax +49 2374 92 88-90

Am Burgberg 20
58642 Iserlohn · Deutschland


SCHEU
Dental Technology

