BEGO PMMA Splint E milling blank for the generation of occlusal splints with thermomemory effect

Instructions

1. Usage

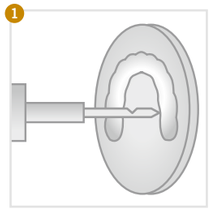
BEGO PMMA Splint E milling blanks are used to manufacture occlusal splints with thermomemory effect.

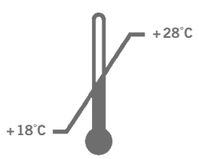
2. Product description

The BEGO PMMA Splint E material is characterized by its thermoplastic flexibility resulting in highly precise adaption to the tooth situation. Moreover, Thermeo offers stress-free wearing comfort for the patient. Furthermore, the self-adjusting occlusal splint shows high transparency and is also extremely resilient to breakage. The industrial production process of Thermeo blanks provides an exceptional material homogeneity and thereby an outstanding long-term stability. The usage of Thermeo milling blanks by CAD/CAM technology ensures a safe production process. The use of BEGO PMMA Splint E milling blanks using CAD/CAM technology also ensures a safe process, since mixing errors (e.g., by hand mixing) are eliminated. In addition will the odor occurring during mixing avoided. Indications: Material for the production of dental occlusal splints: Reflex splints, Therapeutic splints, Repositioning splints, Stabilization splints.

3. Processing

- BEGO PMMA Splint E milling blanks should be used only for the purpose of CAD/CAM production of dental occlusal splints. They can be used in all common CAD/CAM systems (fig. 1).
- Suitable cross-cut carbide cutters are to be used exclusively for the processing of the BEGO PMMA Splint E material.
- BEGO PMMA Splint E occlusal splints are designed and milled by CAD/CAM technology and qualified staff. After finishing,the thickness in the occlusal region of the splint must not be less than 0,9 mm. For aesthetic reasons,a labial reduction to 0,8 mm is permissible. Any corners and edges should be rounded off.
- BEGO PMMA Splint E splints can be removed from the milling blank by using suitable cross-cut carbide cutters or cutting discs suitable for composites. Carefully cut through the retaining strips without pressure.
- In order to avoid plaque accumulation subsequent polishing of the splints is essential. Please pre-polish with suitable silicone polishers and goat's hair brushes. The high-luster polishing should be done with a corresponding polishing compound (fig.2). As far as possible, please avoid heat generation during the polishing and finishing of the BEGO PMMA Splint E splint. This guarantees the optimal fitting of the splint.
- Please note: Upon completion, use an ultrasonic bath with water at a maximum temperature of approx. 35°C for cleaning. Cleaning solutions are not recommended.
- Thermeo® powder liquid system must be used for repairs or addition of material in order to preserve the thermoplastic properties of the splint. The processing recommendations of the manufacturer must be taken in consideration.





Ideal storage and working temperature

4. Milling parameters BEGO PMMA Splint E

Roughing:
- 2 mm ball radius cutter – single cutter
- Speed: 22,000 rpm
- Radial path distance: 0.6 mm
- Z depth increase: 0.6 mm
- Feed: 1,600 mm/min

Finishing:
- 2 mm ball radius cutter – single cutter
- Speed: 22,000 rpm
- Radial path distance: 0.1 mm
- Z depth increase: 0.1 mm
- Feed: 1,600 mm/min

Rest roughing:
- 1 mm ball radius cutter – single cutter
- Speed: 28,000 rpm
- Radial path distance: 0.1 mm
- Z depth increase: 0.1 mm
- Feed: 1,200 mm/min

The irrigation nozzle on the spindle should be aligned with the tool tip. In this occasion it should be noted that a uniform programming length is respected or the length of the 2 mm tool is estimated. The cooling medium air is sufficient.

5. Notes

- Incorrect use of milling tools, polishing brushes, steam cleaner and water baths can overheat the material exposed and thus the properties are adversely affected. Deviations from the described manufacturing process can lead to different mechanical and optical properties of the material.
- The lot number and the best before date are indicated on each BEGO PMMA Splint E packaging.In case of claims please always indicate the lot number of the product.
- Do not use the product after expiration date.
- The use of the material for the production of conventional splints is contraindicated, as is the production of denture bases. When properly handled and used by the dentist, orthodontist and dental technician, no side effects were observed. Undesirable biological reactions (e.g. allergies to material components) may occur in individual cases. Clarify the use of BEGO PMMA Splint E splints with your dentist or orthodontist in case of a known allergic response to components of BEGO PMMA Splint E.
- Clean BEGO PMMA Splint E splints under cold running water with a toothbrush. Disinfect the splint with non-alcoholic detergents before first use.

6. Safety advice

- Restorations are custom-made devices in accordance with the Directive 93/42/EEC. Record the BATCH no. for every procedure requiring identification of the material.
- Storage: No special measures are required.
- Disposal: Dental objects made of BEGO PMMA Splint E are not water soluble, are inert, and do not present a hazard for ground water. As such, they can be disposed of as domestic waste without any special precautions if not stated otherwise in your local disposal guidelines.
- Warranty: Our recommendations concerning the application technique, regardless of whether they are communicated in writing, orally, or by means of practical instructions, are based on our own experiences and tests. As such, they are intended as guidelines only. We are continually striving to improve our products. Consequently, we reserve the right to make changes to their design and composition.
- Hazard Information: Processing of BEGO PMMA Splint E blanks produces dusts which can irritate the eyes, skin, and airways. As such, it is essential to ensure the protective gear at your workplace is in perfect working order.
- BEGO is not liable for any damages caused by improper application of the material. To be used by trained specialist personnel for the purpose indicated only.

7. Ordering information

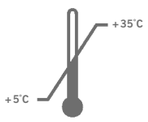
Ordering information	Contents	REF
Milling blank PMMA Splint E – 20 mm	1 piece	71200
Milling blank PMMA Splint E – 16 mm	1 piece	71201

8. Technical data

Chemical composition	
Poly(m)ethylacrylate and cross-linking copolymers of methacrylic acid	> 90 %
1.2-cyclohexane dicarboxylic acid diisononyl ester	< 10 %

Material data	
Flexural strength (23 °C)	> 20 MPa
Flexural strength (37 °C)	< 20 MPa
Density	approx. 1.1 to 1.2 g/cm³
Color	clear transparent

9. Label symbols



Temperatur limit

CE 0481

CE mark

Consult instructions for use

Use by date

Batch code

Catalogue number

Date of manufacture

Made in Germany

Manufacturer
Pro3dure medical GmbH
Am Burgberg 13
58642 Iserlohn
Germany

distributed by:
BEGO Bremer Goldschlägerei
Wilh. Herbst GmbH & Co. KG
Wilhelm-Herbst-Str. 1
28359 Bremen, Germany

BEGO

REF 20442/02 · NoS · © 2019 by BEGO · 20190919