

1. Intended use

Functional therapeutic bite splint material with thermomemory effect.

2. Indication

The THERMEO® | MSI blank is a disc intended for the fabrication of dental appliances such as mouthguards, nightguards, bruxism and TMJ splint appliances, and bite splints using CAD/CAM milling machines.

3. Contraindication

THERMEO® | MSI is contraindicated ...

- ... if a patient is known to be allergic to any of the ingredients.
- ... for bruxism splints and splints with wall thickness ≤ 0.9 mm.
- ... for denture bases.
- ... for every application that is not part of the indication (see above).

4. Product Description

The THERMEO® | MSI includes a lactam-based, biomimetic solution for multi-species inhibition*. This reduces the formation of undesirable biofilms on orthodontic appliances without a microcidal effect.

*c. albicans / s. mutans

5. Patient Target Group

Persons being treated in the context of a dental procedure.

6. Intended Users

Dentist, dental technicians

7. Processing

- THERMEO® | MSI 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 THERMEO® | MSI material.
- THERMEO® | MSI 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.
- THERMEO® | MSI 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 THERMEO® | MSI 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® | MSI 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.

8. Milling parameters

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:

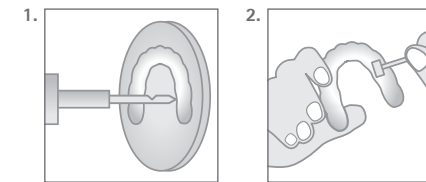
- 1 mm ball radius cutter – single cutter
- Speed: 28,000 rpm
- Radial path distance: 0.1 mm
- Z depth increase: 0.1 mm
- Feed: 1,200 mm/min

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.

9. Notes

- Incorrect use of milling tools, polishing brushes, steam cleaner and water baths can overheat the material exposed and thus adversely affect the properties. Deviations from the described manufacturing process can lead to different mechanical and optical properties of the material.

UMDNS 16-697



- The lot number and the best before date are indicated on each THERMEO® | MSI packaging. In case of claims please always indicate the lot number of the product.
- Do not use the product after expiration date.
- Undesirable biological reactions (e.g. allergies to material components) may occur in individual cases. Clarify the use of THERMEO® | MSI splints with your dentist or orthodontist in case of a known allergic response to components of THERMEO® | MSI.
- Clean THERMEO® | MSI splints under cold running water with a toothbrush. Disinfect the splint with non-alcoholic detergents before first use.

10. Safety advice

- Record the BATCH no. for every procedure requiring identification of the material.
- Storage:** No special measures are required.
- Disposal:** Dental objects made of THERMEO® | MSI 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 THERMEO® | MSI 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.
- pro3dure 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.

Physical properties */
Physikalische Eigenschaften */
Propriétés physiques */
Propiedades físicas */
Proprietà fisiche *:

THERMEO® | MSI

Density/
Dichte/
Densité/
Densidad/
Densità:
ca. 1.1 g/ml

Flexural strength/
Biegefestigkeit/
Résistance à la flexion/
Resistencia a la flexión/
Resistenza alla flessione:
23 °C (MPa) > 20 **

Flexural strength/
Biegefestigkeit/
Résistance à la flexion/
Resistencia a la flexión/
Resistenza alla flessione:
37 °C (MPa) < 20 **

Ideal storage and working temperature/
Ideale Lagerungs- und Verarbeitungstemperatur/
Température idéale de stockage et de mise en œuvre/
Temperatura de almacenamiento y procesamiento ideal/
Temperatura di conservazione e lavorazione ideale:



Ordering information/
Bestellinformationen/
Informations de commande/
Informazioni sobre pedidos/
Informazioni sull'ordine:

THERMEO® | MSI

Milling blank/
Fräsronden/
Disques à usiner /
Discos de fresado/
Dischi di fresatura

ocean-blue/
ocean-blau/
bleu-océan/
azul-oceano/
blu-oceano

Height/
Höhe/
Hauteur/
Altura/
Altezza:
d = 16 mm
Ø = 98,5 mm

REF: D1023002

Height/
Höhe/
Hauteur/
Altura/
Altezza:
d = 20 mm
Ø = 98,5 mm

REF: D1023003

* These data come from measurements of a representative sample that was determined as part of our quality assurance. / Diese Daten stammen aus Messungen einer repräsentativen Probe, die im Rahmen unserer Qualitätssicherung ermittelt wurden. / Ces données proviennent des mesures d'un représentant échantillon qui a été déterminé dans le cadre de notre assurance qualité. / Estos datos provienen de mediciones de una representante muestra que se determinó como parte de nuestra garantía de calidad. / Questi dati provengono dalle misurazioni di un rappresentante campione che è stato determinato nell'ambito della nostra garanzia di qualità.
** According to internal design and requirements specifications / Gemäß internen Design- und Anforderungsspezifikationen / Selon la conception interne et les spécifications des exigences / Segun especificaciones de diseño y requisitos internos / Secondo la progettazione interna e le specifiche dei requisiti.
*** on the basis of ... / in Anlehnung an ... / s'ispirant de ... / basado en ... / sulla base di ...
**** not applicable / nicht anwendbar / non applicable / no applicable / non applicabile



This side up.
Diese Seite nach oben.
Ce côté vers le haut.
Este lado hacia arriba.
Questo lato in su.



Temperature limit
Temperaturgrenze
Limite de température
Limite di temperatura
Limite di temperatura



CE mark
CE Zeichen
CE marque
CE marca
CE marchio



Do not use if package is damaged.
Nicht verwenden, wenn das Paket beschädigt ist.
Ne pas utiliser si l'emballage est endommagé.
No lo use si el paquete está dañado.
Non usare se il pacchetto è danneggiato.



Consult instructions for use.
Gebrauchsanweisung beachten.
Consulter le mode d'emploi.
Consultar instrucciones de uso.
Consultare le istruzioni per l'uso.



Keep away from sunlight.
Von Sonnenlicht fernhalten.
Éloigner du soleil.
Mantener alejado de la luz solar.
Tenere lontano dalla luce del sole.

Rx only

QTY: 1EA



Medical Device
Medizinprodukt
Dispositif médical
Producto sanitario
Dispositivo medico



Use by date
Haltbarkeitsdatum
Utiliser par date
Utilizar por fecha
Usare entro la data



Catalogue number
Katalognummer
Numéro de catalogue
Número de catálogo
Numero di catalogo



Lot number
Chargennummer
Numéro de lot
Número de lote
Numero di lotto



Date of manufacture
Herstellungsdatum
Date de fabrication
Fecha de manufactura
Data di produzione



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