CE 0546

Processing recommendation for **TRILOR™** milling discs and milling blocks in the CAD-CAM technology**.**

Description of the product

TRILOR™ milling discs and milling blocks of Bioloren consist in an epoxy resin matrix and multi-directional integrated fiberglass. **TRILOR™** milling discs and milling blocks are in accordance with the directive 93/42 EWG of medical products class 2a for fixed and removable denture.

Indications

TRILOR™ milling discs and milling blocks are suitable for the manufacturing of:

- Crowns
- Bridge structures up to 2 pontics
- Maryland-bridge
- Abutments
- Implant- superstructures
- Bar structures on implants
- Long-term temporaries
- Model casting
- Drilling templates

Preparation guidelines and minimum values

Design of the preperation margin:
the ideal preperation is a hollow fillet with an expansion of between 0,6 and 1mm. The convergence angle should be < 12°. The height of the stump should be > 4mm, by fixed supply.

Minimal values:
0,6 - 1.0mm wide preparation
0,8 - 1,5mm Inzisal distance
0,8 - 1,5 mm Occlusal distance

If the material is exposed directly with the fluids of the mouth cavity, at least the max. values of the values above indicated have to be achieved. A cement gap of 50 micron should be provided.

Design

The realization of the substructures in **TRILOR™** will be constructed by the dental technician element by element in the design program. The rules and settings of the CAD programs must be observed and the minimum values for **TRILOR™**. For connectors a minimum of 9mm² must be observed. It should be noted that the values has to be increased if the qty of the interlinks increases! By free-end situations, the size of a free-end should not exceed the size of a premolar and the thickness of a connector must be at least 16mm².

Milling / Elaboration

The discs and blocks of **TRILOR™** are designed for machining by 3, 4 or 5- axis milling machines. A huge range of dimensions is available. Fist choose the appropiate dimension (e.g. height of disc) aptly to your prosthetic work. For material processing we recommend the use of coated tools (longer life) and appropiate milling strategies you can get from the the milling machine manufacturer. **As guide may serve the strategies of PMMA or composites.**

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If available, **TRILOR™** can be milled by liquid cooling. But it´s not a requirement. Milled frameworks can be removed out of the milling disc with a carbide metal tool in criss-cross toothing or with diamond coated discs.

Veneering

TRILOR™ frameworks can be vennerd with plastic veneering materials or as well glued with lithium-disilicate crowns. Finished works are attached at the stumps with adhesive techniques, bar constructions or abutments are screwed or glued.

Attention!

Avoid any contact of milling blanks with oil or grease. if it happens, clean well with alcohol.
Temperatures higher than 150 °C destroy the product.

Fixing / Cementing and surface preparation

After fixing the construction on the model, the frame in the cavity will be blasted with aluminium oxide (50µ). Ensure that the flow pressure doesn´t exceed 1 bar. Than the inner surface has to be etched with orthophosphoric acid to degrease them completely. Than sinalize for 60 seconds and bond (without light curing). A dual curing cement (URC) or similar is applied. (Optionally heated to 50° Celsius).

On the stump side a careful cleaning with appropiate products (like pumice powder, polishing paste, etc) must take place. In case of core build-ups the surface of the structure must be prepared according to the materials. Than happens an etching with orthophosphoric acid of the possibly remaining dental-enamel of the structure and the dentins. (Protect the adjacent teeth of etching). By blasting the structures in the mouth cavity with 50µ of aluminium oxide, take the protective measures for the pacient! (Risk of inhalation) Thereafter optionally a primer can be applied. On the surface of the structure material, a silanizing should be apllied for 60 seconds, than a bonder (without light curing) all over the complete stump.
By fixing on a complete structure, consider the following steps - the conditioning of **TRILOR™** remains as decribed above.

For structures in metal or zirkonia:

- Degreasing
- Blasting with 50 micron
- Silanization for 60 seconds

After placing the restoration, the excess material will be roughly removed. After reaching the final position of the restoration by ultrasonic or sonic, the excess material will be removed carefully. Than happens the light curing according to the guideline of the manufacturer and the lamp manufacturer. Along the preparation margin, glycerine can be applied as oxidation protection. (This improves the surface quality of the fixing material in the area of the preparation margin). the final finishing happens by rubber polishing, finishing strips, etc. Occlusion check!

Storage

The products are delivered in a closed plastic packaging, labeled: Dimension, size, lot number, for the tracking of the batch of delivered products. We recommend to store the product in the original packaging until use.

Waste disposal

TRILOR™ products are not water soluble and residuos can be disposed in accordance with the local valid municipal regulations.

Security advise

TRILOR™ Processing with protective equipment and dust suction device!