

BEGO Grade 5 Titanium

Directions for use

Bego Grade 5 Titanium is a titanium-alloy and is available in the form of discs and rods for milling. Bego Grade 5 Titanium corresponds to ISO 22674.

Alloy characteristics

Bio-Certificate	☒
Type (ISO 22674)	5
Density [g/cm ³]	4.5
Modulus of elasticity [GPa]	approx. 115
0.2% Elongation limit (R _{p 0.2}) [MPa]	800
Tensile strength (R _m) [MPa]	900
Ductile yield (A ₅) [%]	15
Vickers hardness (HV10)	330
Bego colour code	(white) 8
Ceramic veneering	not approved for ceramic veneering
Laserwire	Titanium wire Ø0.35mm (Ref 50008)

Indication for use: BEGO Grade 5 Titanium is a titanium alloy. It is suitable for the preparation of crowns and bridges and for abutment and bar constructions. BEGO Grade 5 Titanium is available as a milling blank with and without step.

For professional use only.

Contraindications: No contraindications are known. However, unwanted biological reactions such as allergies to the contents of the alloy or electrochemically based reactions may, very rarely, occur. In the case of known incompatibilities and allergies to the contents of the metallic material it should not be used.

Warning: Metal dust is harmful to your health. Use an exhaust system when grinding and sandblasting. A breathing mask type FFP3-EN149-2001 is recommended.

Precautions: Electrochemically based reactions may, very rarely, occur in the case of occlusal or approximal contact of different alloys. Safety and effectiveness in the treatment of children and pregnant or nursing women has not been established. BEGO Grade 5 Titanium can interfere with the analysis of MRI scans.

Side effects: There are no known side effects of BEGO Grade 5 Titanium. However, it cannot be excluded that rare cases of individual reactions against single components of BEGO Grade 5 Titanium may occur. If this is the case, the use of BEGO Grade 5 Titanium should be discontinued.

Modelling: Minimum metal thickness 0.4mm. Choose a connector size as thick and, more importantly, as high as possible.

Milling/Finishing: Minimum metal thickness 0.4mm. Use fine carbide tools suitable for Titanium. For grinding apply low pressure and work in one direction only.

Important! Use special tools for Titanium only. Keep these tools separate! A dark or discolored, slightly rough surface indicates insufficient processing. Repeat the procedure!

When using cooling/lubricating agents for milling ensure complete final cleaning and removal from surfaces!

Passivation: Provide for sufficient passivation of a freshly prepared surface at different work stages by waiting for at least 10min before resuming work.

Acrylic veneering: The corresponding manufacturer's instructions must be followed when processing the veneering systems.

Final work: Carefully blast visible metal surfaces (e.g. inside crowns) with Korox®50 at 2 bar and then blast-polish external surfaces with Perlablast®. Then continue polishing the external surfaces with low pressure and low speed (avoid overheating!) using polishers suitable for Titanium, after that finish with BEGO-cobalt-chrome polishing paste (blue, REF 52310) and allow for passivation of the fresh surface for at least 10min. Clean thoroughly (steam clean or boil in aqua dest.).

Laser welding: If possible work with V-seam and filler metals. Follow the equipment manufacturer's instructions.

Warranty: Whether given verbally, in writing or by practical instructions, our recommendations for use are based upon our own experiences and trials and can only be considered as standard values. Our products are subject to constant and continuous development therefore any alterations in construction and composition are reserved.