

## Instructions for use

Castable Gold Abutment with screw

**Description:** Castable Gold Abutment with screw for Individual abutments under CE-Series, CL-Series, CN-Series, CH-Series, CF-Series, CR-Series, CS-Series. During casting, the non-oxidizable gold-plastic abutment is wetted by the melt of a precious casting, universal or bonding alloy. The metallic compound is produced by diffusion of alloy components of both materials.

The Castable Gold Abutments with screw for the CE-Series are indicated for Nobel Replace Straight Groovy<sup>®</sup>, Replace Select Tapered<sup>®</sup>, Replace Select Straight<sup>®</sup>, Nobel Replace Tapered Groovy<sup>®</sup>, NobelSpeedy Replace<sup>®</sup>, NobelReplace platform shift<sup>®</sup>, manufactured by Nobel Biocare<sup>®</sup>.

The Castable Gold Abutments with screw for the CF-Series are indicated for NobelActive™ implants, manufactured by Nobel Biocare<sup>®</sup>.

The Castable Gold Abutments with screw for the CH-Series are indicated for Biomet 3i Certain<sup>®</sup> implants, manufactured by Biomet 3i<sup>®</sup>.

The Castable Gold Abutments with screw for the CL-Series are indicated for Bone Level implants, manufactured by Straumann<sup>®</sup>.

The Castable Gold Abutments for the the N-Series are indicated for synOcta<sup>®</sup> implants, manufactured by Straumann<sup>®</sup>.

The Castable Gold Abutments with screw for the R-Series are indicated for Tapered Screw-vent<sup>®</sup> implants, manufactured by Zimmer<sup>®</sup>.

The Castable Gold Abutments with screw for the S-Series are indicated for OsseoSpeed<sup>®</sup> implants, manufactured by Astra Tech<sup>®</sup>

Each Castable Gold Abutment is delivered with an abutment screw for fixation on the implant.

The article number is the order number.

**Composition:**

Gold (Au) 60%  
Platinum (Pt) 19%  
Palladium (Pd) 20%  
Iridium (Ir) 1%

**Type/Indication:**

Type (classification) 4 according to DIN EN ISO 22674; extra high stability: for casting objects which are exposed to very high application of load, and with thin cross-sections.

**Indications:**

Castable Gold abutments with screw are indicated for single-tooth and multi-unit restorations. Castable Gold abutments with screw are used in aesthetic situations when tissue is limited. Castable Gold abutments allow the dental professional to produce the exact desired angulation, height, and diameter required for the specific case.

**Contraindications:**

Castable Gold Abutments are made of gold alloy and may cause allergic reactions due to an existing gold allergy in the patient. All Castable Gold abutments with part numbers ending in R, for example CN300-1R, do not have an anti-rotational hex to engage the dental implants internal hex, so they cannot be used for single tooth restorations.

**Colour:** White

**Technical Data:**

Melting range	1400-1490 °C
Vickers Hardness HV 5/30	a 145 s225 h240
a)annealed	1000 °C/30 min
s)self-hardening	by slow cooling-down of casting
h)hardening/high temperature tempering	700 °C/30 min cooling-down by exposure to air

**Preparing:**

Modelling: The transparent plastic sleeve can be shortened. Modelling is done according to the processing mode customary in dentistry. The interface and platform to

the implant have to be absolutely free of plastic, wax and fat residues to avoid possible cast-on in this area.

**Investing:** You can only use phosphate-bounded(plaster-free) investment materials recommended for precious metal casting. Avoid bubbles during investing.

**Pre-heating:** Observe the instructions for use provided by the manufacturer of the investment material. Observe the hold time of the pre-heating temperature specified by the alloy manufacturer. With regard to the casting ring of type 3, the hold time is about 30-40 minutes to ensure a complete cast-on.

**Melting/Casting:** The casting temperature of the veneering alloy used has to be well below 1400°C (solidus of the gold-plastic abutment) to prevent the gold-plastic abutment from melting. In case of centrifugal casting, the casting objects have to be oriented against the direction of the rotation. Observe the instructions prevailing for each casting tool.

**Cooling-down:** To avoid mechanical stress on the casting object, you have to cool down the casting cylinder to room temperature, applying a maximum pressure of 2 bar.

**Divesting/Pickling:** After divesting, the investment material may only be removed by using polishing beads. Apply a maximum pressure of 3 bar to prevent the interface to the implant from being modified in its dimensions. Afterwards, the cooled-down casting object can be put into a warm pickling solution.

**Processing:** The casting object has to be processed by using ceramic-bounded disks/stones or tungsten carbide burs (x-cut). When grinding dental alloys, it is recommended to always use safety goggles, respiratory protection and/or extraction units. To protect the interface during grinding it is recommended to screw the abutment into a lab analog. Before oxide bake, the areas to be veneered are blasted by pure aluminum oxide(about 110µm), applying a very low pressure(0.5-1.5 bar). Afterwards, the areas are cleaned by distilled water in ultrasonic, or by steam.

**Oxidizing:** Due to the ceramic materials used, the oxide bake can be performed atmospherically between 900-950°C for 10 minutes, or 800°C in case of universal alloys.

**Veneering:** For surface finishing and veneering by using ceramic material/plastic refer to the recommendations given by the respective manufacturers. Observe the properties of ceramic materials(CTE coefficient) and of the bonding alloy. The ceramic material must not get in contact with the abutment alloy due to the different CTE coefficient(cracking, chipping).

**Polishing:** To protect the interface to the implant it is recommended to screw the abutment into a lab analog. Pre-polishing by rubber polishers, high-gloss polishing by polishing paste or brush, felt wheel and/or polishing wheel.

For fixation of the Castable Gold Abutment with screw to the implant, the correct torque force, recommended by the implant manufacturer, has to be considered carefully to avoid the damage of the implant-bone connection.

Ncm	Abutment			
20	CH-Series			
25	CS-Series			
30	CR-Series			
35	CN-Series	CE-Series	CL-Series	CF-Series

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