straumann

PROSTHETICS

RN synOcta® gold abutment

One-piece solution for anterior esthetics.

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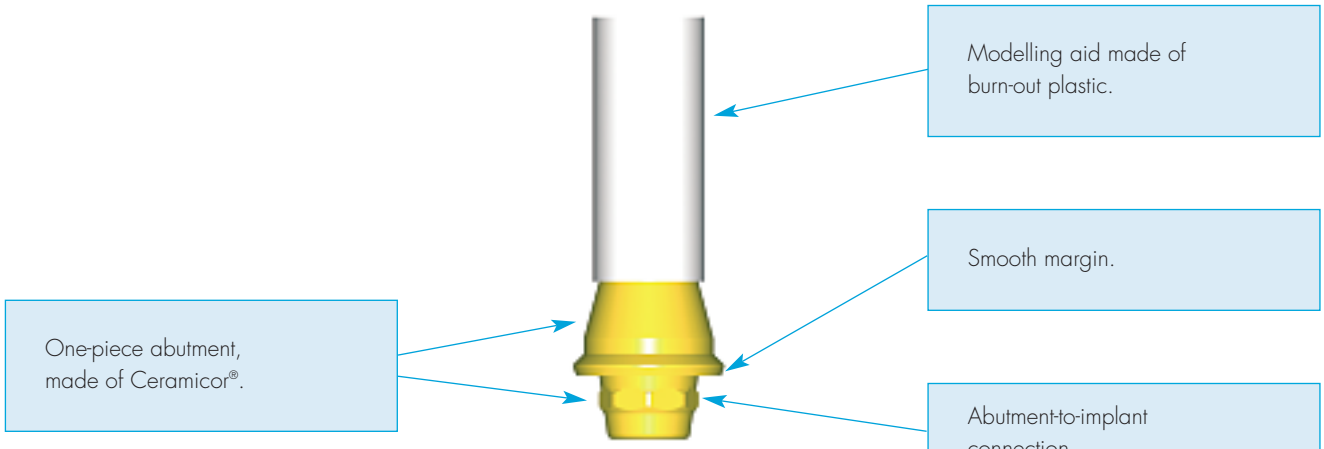
Straumann is the exclusive industrial partner of the ITI (International Team for Implantology) in the areas of research, development and education.

Contents

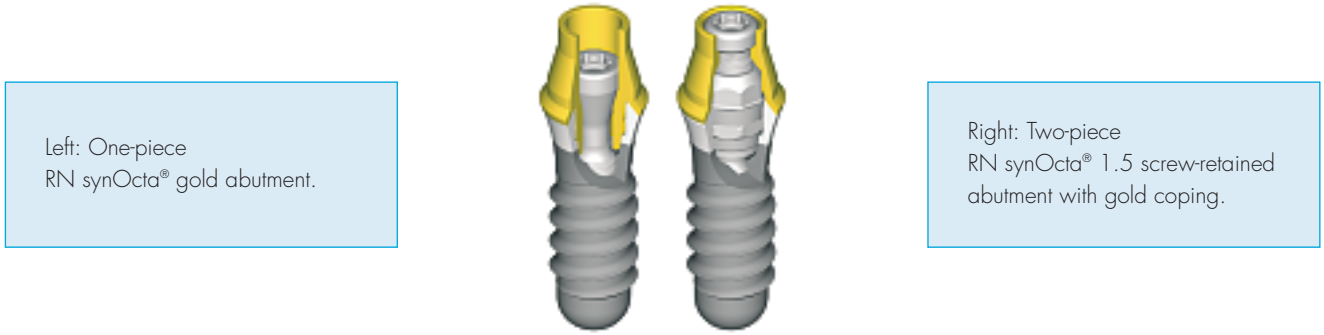
One-piece solution for anterior esthetics

The one-piece solution for anterior zone esthetics.
As an easy-to-process one-piece solution, the RN synOcta® gold abutment for direct cast-on procedures simplifies production by substantially reducing required handling steps. With the option to create a screw or cement-restoration, the RN synOcta® gold abutment offers the prosthetic versatility needed to achieve individual esthetic results.



RN synOcta® gold abutment
Art. No. 048.642

This one-piece component ensures an individualized solution that matches the esthetic requirements of the gingival contour when dealing with implants that are placed more than 3.0 mm subgingival.



The high precision and stable fit between the abutment and the Straumann dental implant is the result of extensive research and the proven octagon connection, supported by the long-term documentation of the Straumann® Dental Implant System. It meets the highest demands in implant dentistry.

Indication
The RN synOcta® gold abutment has an octagon in the basal portion that joins with the octagon of the Straumann dental implant to prevent it from rotating. It is exclusively intended for use with screw-retained single-crown restorations or as a customized abutment for cement-retained crowns. The gold abutment is **not suitable** for direct splinting to another gold abutment. Single restorations with a screw access hole through the occlusal/cingulum surface may be fabricated. The screw channel of burn-out plastic is attached to the gold abutment to optimize any modification. The use of a RN synOcta® 1.5 screw-retained abutment (048.602) is not necessary.

One-piece solution for anterior esthetics

Features and benefits

Reliable
- Precise fit between the RN synOcta® gold abutment and the Straumann implant
- 2.1 mm deep counter-sunk screw provides for a reliable connection
- Long-term documentation of the Straumann® Dental Implant System

Simple
- One-piece solution
- Direct cast-on abutment

Versatile
- Esthetic solution for anterior crown restorations
- Optimal design for fabrication of customized abutments for contouring of ideal emergence profile and adaptation of margin to gingival contour
- For use with screw or cement-retained single crowns

Material:
- Abutment: Ceramicor®, a non-oxidizing alloy for cast-on procedure
- Modeling aid: burn-out plastic (POM)
- Occlusal screw: titanium

Dimensions:
- RN synOcta® gold abutment, height 6.4 mm
- Modelling aid, length 8.8 mm
- Occlusal screw, length 6.7 mm
- RN synOcta® gold abutment with mounted modeling aid, length 14.1 mm

One-piece solution for anterior esthetics

Fabricating a custom abutment with the RN synOcta® gold abutment for a cement-retained crown

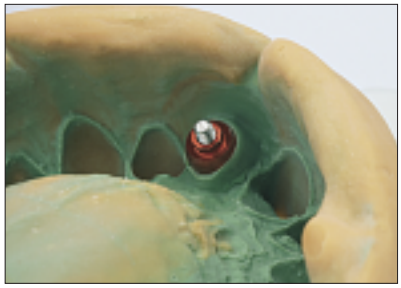
1. Fabricating the master cast

For the fabrication of the master cast, the RN synOcta® analog must be positioned in the impression.

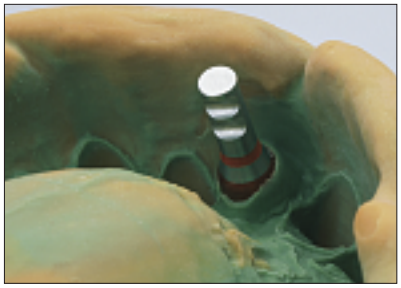
RN synOcta® analog
Art. No. 048.124

There are two techniques available for taking the impression:

– Open tray impression procedure:

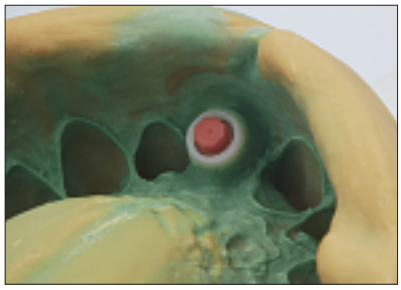


The impression with the RN synOcta® impression cap, screw-retained.

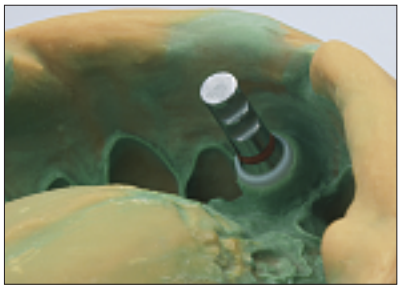


The RN synOcta® analog connected to the impression cap using the integral guide screw.

– Closed tray impression procedure:

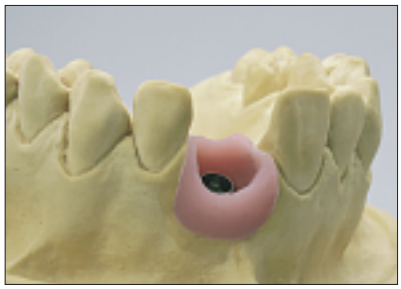


The impression with the RN impression cap and the RN synOcta® positioning cylinder.



The RN synOcta® analog is snapped into the impression cap. The shoulder must click audibly into place to ensure proper seating of the analog.

The master cast is then poured in the conventional technique using an extra-hard stone plaster (DIN 13911).

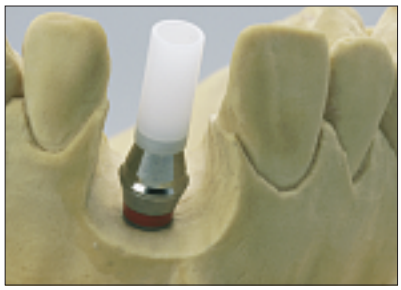


Tip:
A gingival mask should always be used to ensure that the emergence profile of the crown is optimally contoured. This is essential for restorations in esthetically demanding regions and with subgingival crown margins.

For further information also see "PROSTHETICS, Crown and Bridge Restorations with the synOcta® Prosthetic System", Art. No. 152.255.

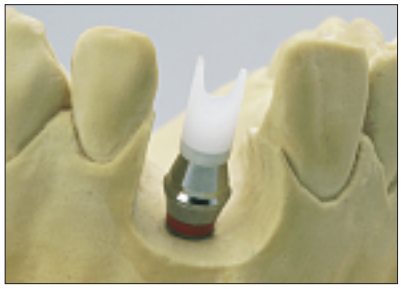
2. Customizing the abutment

A. The RN synOcta® gold abutment is placed on the analog and aligned in the internal octagon.



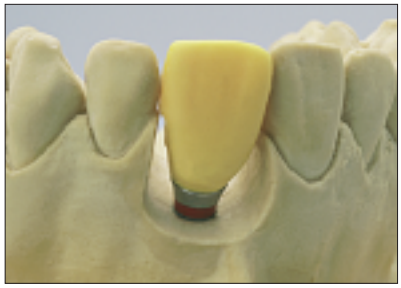
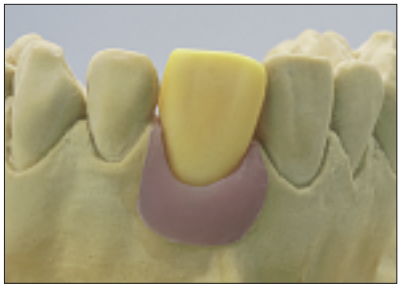
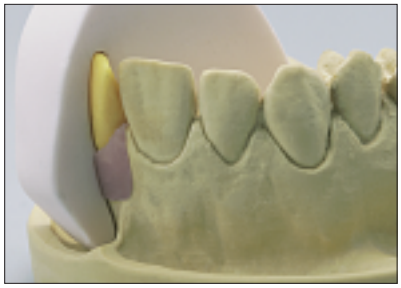
Important:
The abutment must be positioned in the internal octagon **before** the internal screw is tightened. The screw is tightened by hand using a SCS screwdriver.

B. Depending on the individual circumstances, the modeling aid can be shortened to the height of the occlusal plane.

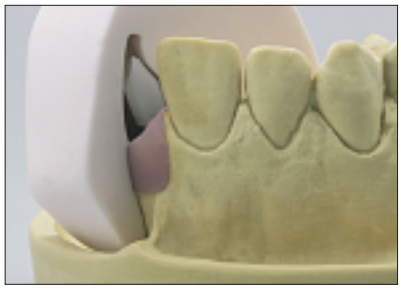
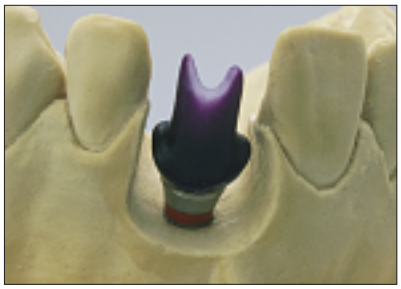
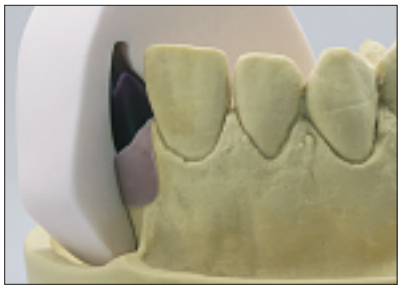


Tip: For easier handling of the abutment the use of an additional analog is recommended for manipulation outside the model.

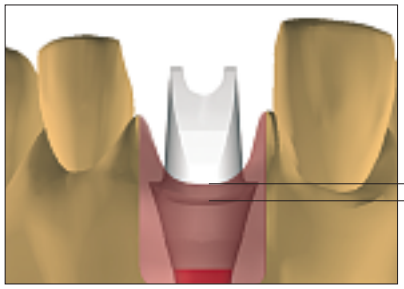
C. For optimal esthetic planning, a wax-up can be modelled. Then a silicone key will be made over the wax-up to define the optimal wax-modellation for the customized abutment.

D. A wax modellation is contoured according to the anatomical circumstances of the individual case. The silicone key shows exactly the space for the cement-retained crown, which will be made over this customized abutment.

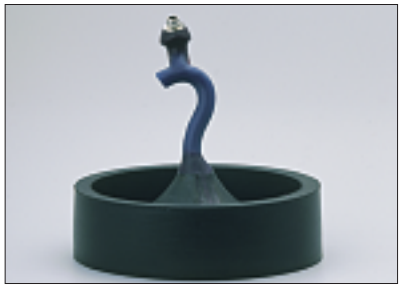
Note:
The modeling on the abutment must be sufficiently thick (wax layer of at least 0.7 mm). Do not cover the delicate margin of the abutment with wax. The modelling aid ensures a clean and sharp-edged finish of the screw channel.



For reasons of hygiene, the cement margin must be no more than 2.0 mm below the gingival level.

The picture shows an optimal design for fabrication of the customized abutment for contouring of an ideal emergence profile and adaptation of the margin to the gingival contour.

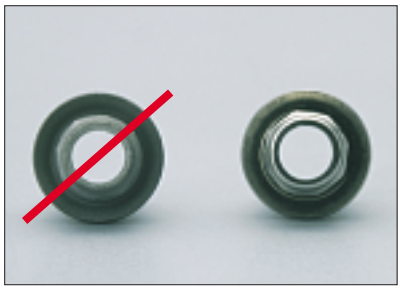
E. Invest the customized abutment in the usual method **without** the use of wetting agents. In order to avoid overflow of the cast-on alloy on the delicate circular edge and interior of the abutment, it is recommended to thoroughly clean the abutment prior to investment (removal of wax particles, insulating agents with a cotton pellet and/or brush moistened **with alcohol).**



Warning:
Ensure that there is no wax on the delicate margin! The use of investment materials for rapid heating methods (speed investment materials) is not recommended! When processing the investment material, follow the investment material manufacturer's instructions. Observe the recommended mixing ratio and preheating time exactly!

Tip: Always do the cast with the modelling aid. Otherwise the dental casting alloy will not or only too thinly flow out at the upper coping rim.

F. Casting the customized abutment. Gentle devestmen with ultrasound, water jet, pickling acid or glass fiber brush.



Note:
Intruded casting metals and casting pearls cannot be removed from the shoulder part of the gold abutment with the reamer instrument for the 45° shoulder due to design reasons. If this occurs, the entire procedure has to be repeated. If casting errors occur, such as insufficient mold fill, casting beads or casting defects in the interior, the procedure must be repeated, as the long-term success of the prosthetic work depends on the accurate fit of the restoration.

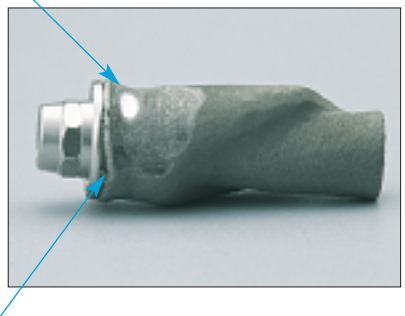
Warning:
Never use sand-blasting for devestment, as it will destroy the abutment.

G. Casting errors and incorrect handling

If the cast-on alloy is trimmed through, the Ceramicor® surface cannot be covered with ceramic veneer and the cast has to be redone. Ceramicor® is a non-oxidizing alloy and allows no ceramic bonding.

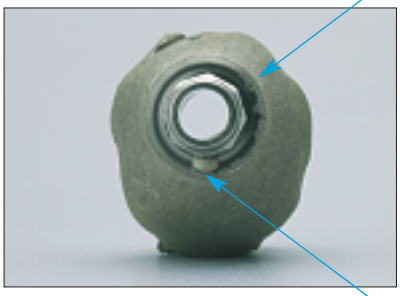
Note:
If you choose to veneer directly onto the RN synOcta® gold abutment, you have to ensure that you have a sufficient metal thickness of the dental casting alloy.

Ground down to abutment level.



Failed casting.

Insufficiently cleaned margin, overflow of alloy on the 45 degree-shoulder.

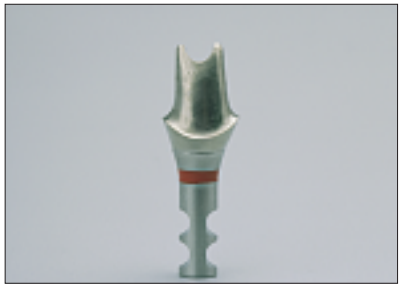


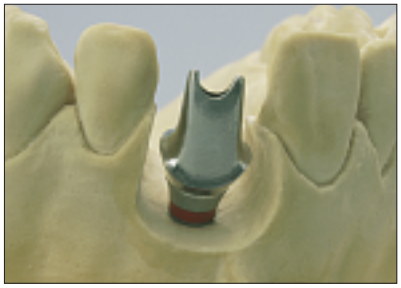
Casting beads and overflow of alloy on the 45 degree-shoulder.

In the case of casting errors like insufficient mold fill, casting beads or casting defects in the interior, the procedure **must be repeated**.

Note:
Additional information on Ceramicor® is also available in "PROSTHETICS, Crown and Bridge Restorations with the synOcta® Prosthetic System," Art. No. 152.255, as well as in the product catalog. For further information on how to use the RN synOcta® gold abutment, please refer to package insert "instruction for use", Art. No. 150.881.

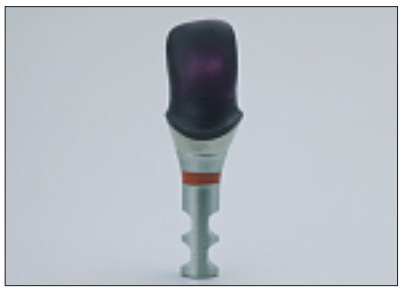
H. After trimming, the finished customized abutment is polished and ready for the fabrication of the cement-retained single crown.

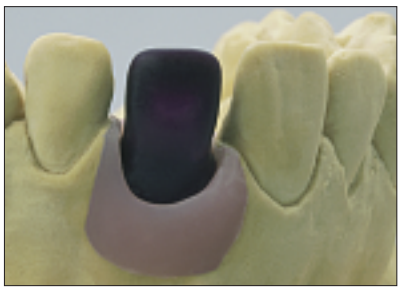


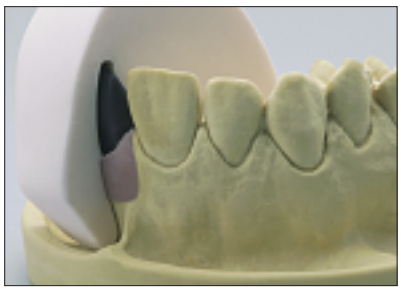


3. Fabricating the cement-retained single crown

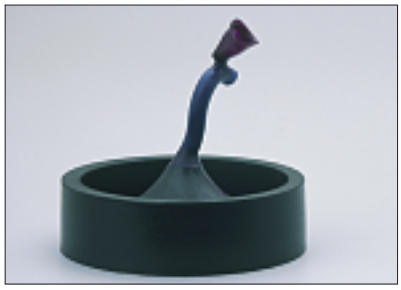
A. After blocking out the screw channel the framework is waxed directly over the customized abutment. The silicone key shows the spatial relations for the restoration.

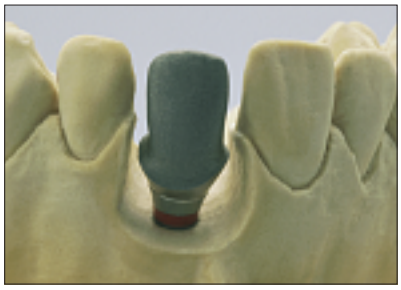




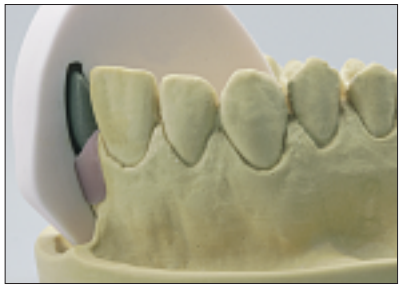


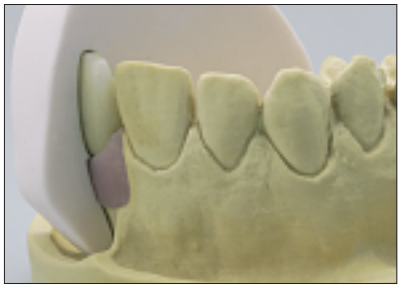
B. Cast the framework in the conventional manner. After the trimming of the cast, the metal crown fits precisely on the customized abutment.



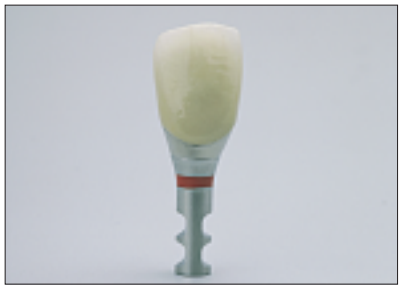


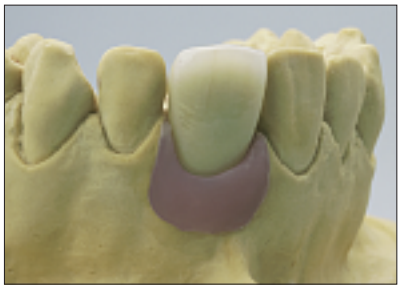
C. The silicone key shows the spatial relations for the veneering.





The final restoration.





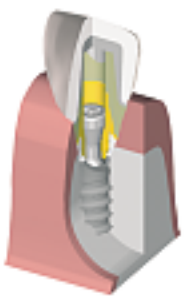
4. Fitting the final restoration

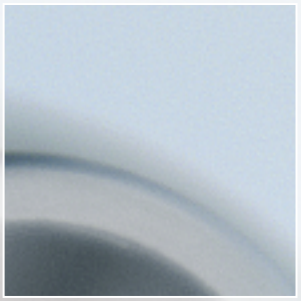
The restoration is delivered to the dentist with the customized abutment on the master cast. The cleaned customized abutment must be positioned in the internal octagon of the implant without the use of cement. The occlusal screw of the RN synOcta® gold abutment is then tightened to 35 Ncm on the implant using an SCS screwdriver, ratchet (Art.No 046.119) and torque control device (Art.No. 046.049).

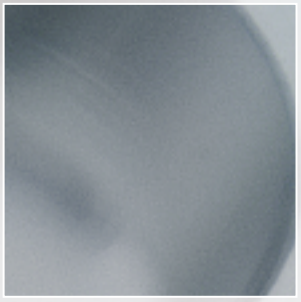
Before cementing the crown, the SCS configuration of the occlusal screw should be closed with cotton and sealing compound (Gutta-percha). This allows the possibility of later removal of the customized abutment in case a crown replacement becomes necessary.

Tightening torque = 35 Ncm

Then the final restoration will be definitively cemented on the customized abutment.







5. Alloy remarks concerning castable Ceramicor® components:

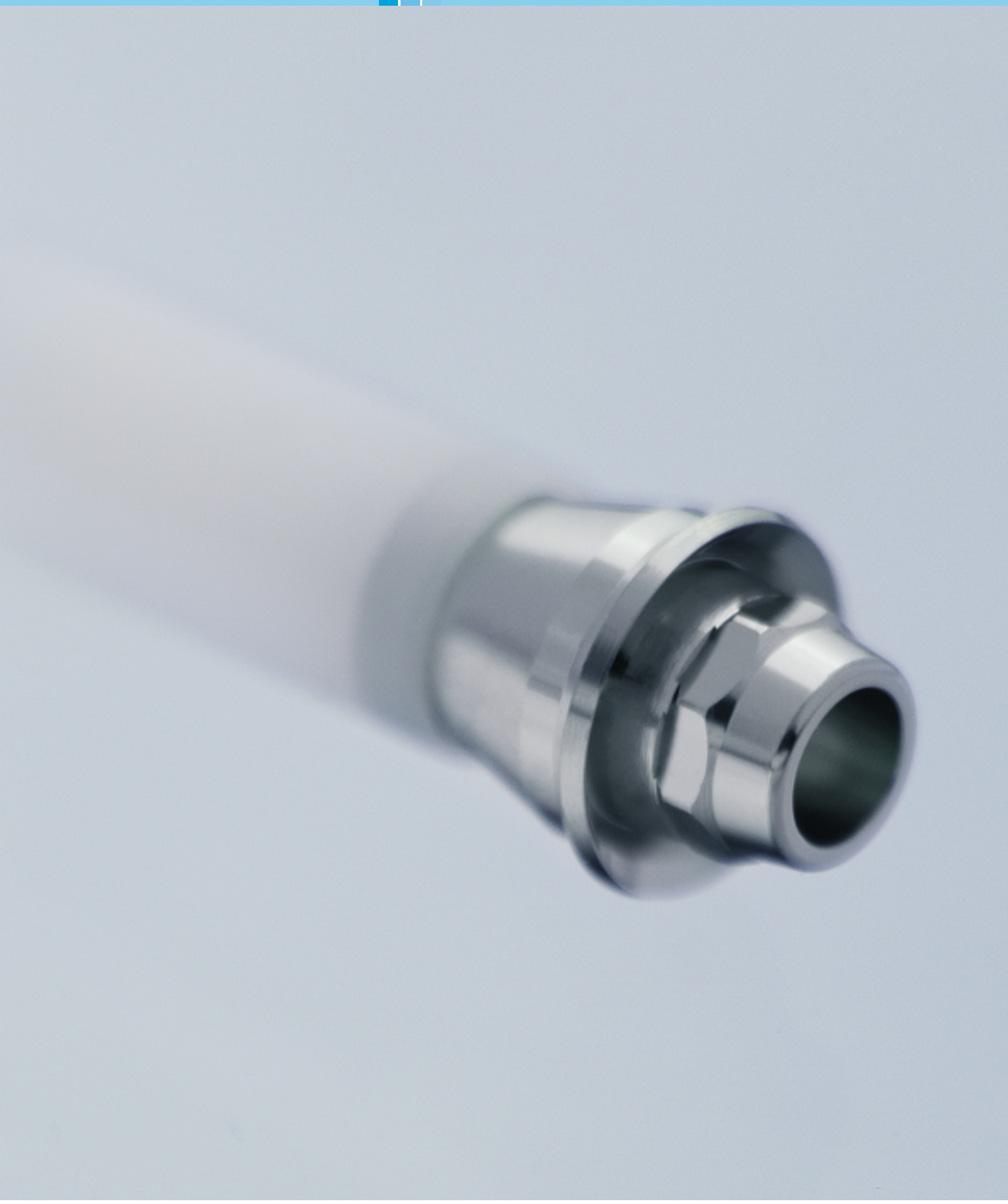
No ceramic can be bonded directly to cast-on Ceramicor® components as this alloy does not form bonding oxides. Ceramicor® is only suitable for cast-on procedures.

Recommendation: When selecting the casting or bonding alloy, ensure that it is compatible with the high-fusing alloy of the Ceramicor® components. The melting range of this casting alloy must not exceed a liquidus temperature of 1350°C/2462°F.
Suitable dental casting alloys:
– High noble alloys
– Precious metal alloys with a minimum content of gold and platinium group metals of 25%
– Palladium based alloys with a minimum content of palladium of 50%.

Ceramicor® must not be cast on with base metal casting alloys, because gold in combination with nickel or cobalt causes destruction of the components!

The following alloy types are suitable for cast-on procedures to the prefabricated Ceramicor® component:
– Metal-ceramic-alloy: ISO norm 9693 (metal ceramics)
– Yellow gold alloy: ISO norm 1562 (dentist's gold cast-on alloy), type 4
– Dental technician's cast-on alloys containing at least 25% and at most 75% of gold and platinum group metals, ISO norm 8891.

Important:
The alloy manufacturer's recommendations must be followed.
Due to diffusion at the alloy/gold coping interface, components made from an unsuitable alloy may form phases with low strength, reduced corrosion resistance or a lower melting range.



Important Notes

Disclaimer of liability
The Straumann dental implant is part of an overall concept and may only be used in conjunction with the associated original components and instruments according to Institut Straumann AG's instructions and recommendations.

Use of products made by third parties in conjunction with the Straumann® Dental Implant System will void any warranty or other obligation, express or implied, of Institut Straumann AG. Instructions as to application of our products take place verbally, in writing, by electronic media or in hands-on trainings corresponding to state of the art at the time of introduction of the product.

The user of Straumann products has the duty to determine whethe or not any product is suitable for the particular patient and circumstances. Straumann disclaims any liability, express or implied, and shall have no responsibility for any direct, indirect, punitive or other damages, arising out of or in connection with any errors in professional judgment or practice in the use or installation of Straumann products.

The user is also obliged to study the latest developments of the Straumann® Dental Implant System and their applications regularly.

Please note
The descriptions given are insufficient to allow immediate use of the Straumann® Dental Implant System. Guidance in the handling of these instruments by a doctor experienced in their use is strongly recommended.

Availability
Not all products listed in this brochure are available in all countries.

Validity
Upon publication of this brochure, all previous versions are superseded.

Caution
As a general rule, our products must be secured against aspiration when used intra-orally.

Delivery
Federal law restricts these devices to sale by or on the order of a dentist or a physician.

Units per package
Unless stated otherwise, there is one unit in each package.

Documentation
You can obtain detailed instructions on the Straumann® Dental Implant System from your Straumann representative.

Copyright and trademarks

Explanation of the symbols on labels and instruction leaflets

LOT	Lot/batch number
REF	Article number
STERILE R	Sterile by gamma irradiation
~~STERILE~~	Nonsterile
	Lower limit of temperature
	Upper temperature limit
	Temperature limitation
Rx only	Caution: Federal (USA) law restricts this product to sale by or on the order of a dentist or physician.
	Do not use on patients
	Do not reuse
	Refer to instructions for use
	Use before expiry date
	Protect from exposure to strong light or heat
CE XXXX	Straumann products carry the CE mark and fulfill the requirements of the Medical Devices Directive 93/42 EEC.

Colored warning labels

YELLOW = CAUTION:	indicates hazards or unsafe handling which might cause minor injury or damage to property.
ORANGE = WARNING:	indicates hazards which might cause serious or fatal injury.
RED = DANGER:	indicates hazards which might cause immediate serious or fatal injury.
Definition SLA®	Sand-blasted, Large grit, Acid-etched

straumann

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Straumann products are CE marked

02/05 152.286/e B10305