

Cercon
smart ceramics



Cercon base cast instructions for use

Cercon smart ceramics –
the CAD/CAM System



Product description

Cercon base cast is a plastic blank for fabrication of crown and bridge frameworks by Cercon brain that burns off without residue.

Cercon base cast has the advantage of allowing you to design frameworks virtually for casting and mill them with Cercon brain. Accurate framework templates can be fabricated in a shorter time because stump conditioning (spacing) is not required and Cercon base cast, unlike casting materials, does not contract.

Indications:

- Frameworks for precious metal and base metal casting

Contraindications:

- Try-in
- Temporary constructions *
- Long-term temporary constructions *

* Including framework veneers with veneering material

Warning:

- Vented air must not be recycled into the work area.
- To comply with the specifications for the preparation, the air levels for diphenylmethane-4.4-diisocyanate must comply with TRGS 430. Local compliance therefore with the TRGS 430 or other national standards must be ensured.
- Diphenylmethane-4.4-diisocyanate has a sensitizing effect. The TRGS 907 or other national standards must be observed.
- Avoid contact with the eyes.
- Do not eat, drink, smoke, or use snuff during work. Wash hands and/or face before breaks and after work.
- The try-in must not be performed in the mouth but on the cast.

Supplied as:

Material:	Polyurethan (PUR)
Package size:	5 pieces
REF:	53 6607 0005

About the instructions for use

The framework design is identical to the fabrication of objects with Cercon art that are milled from the Cercon base 47 zirconium oxide blank with Cercon brain. Our instructions for use for Cercon eye and Cercon art provide detailed information on these work steps.

Cercon brain mills both Cercon base and Cercon base cast with its rotary instruments (coarse and fine milling), making it unnecessary to change bits.

The inside of the safety cover may accumulate an electrostatic charge because of the electrostatic charging of the plastic particles. Unfortunately this effect cannot be avoided.

Cercon art settings for Cercon base cast:

Wall thickness: depends on the type of alloy or the recommendation of the alloy manufacturer (please follow the manufacturer's instructions for use)

Cement gap: approx. 30 µm

Spacer area: approx. 85 %

Cutting and bonding frameworks:

If it is necessary to cut a framework fabricated from Cercon base, it can be bonded again with casting plastics.

However, the bonding area must be waxed-over to the casting channel to allow room for expansion for burning out this plastic.

Reference values for the expansion of the investment mass:

For expansion control we recommend

- an approx. 70 % mixing fluid (Deguvest SR) for **precious-metal frameworks**
- an approx. 90 % mixing fluid for **base-metal frameworks**

Preheating

Burn out the plastic at 280 °C for 45 minutes.

A "speed process" is not recommended for Cercon base cast. The furnace exhaust or exhaust hood must be run continuously when preheating the casting cuvette while burning off the plastic. Inhalation of the plastic vapors will damage health.

Dental technical work steps

1. In the Cercon art material selection window please select the material "Plastic".
2. After the next work steps and the completed framework construction select the **milling option "Own device"** and the **blank selection "Base 47"**.
3. Read the bar code from Cercon base cast into the Cercon brain.
4. Clamp the Cercon base cast into milling frame 47 and place it in the holder of the turning and rotary unit of the Cercon brain.
5. Close the safety cover of the Cercon brain.
6. ... and start Cercon brain.
7. On completion of milling open the safety cover of the Cercon brain, remove the milling frame from the turning and rotary unit and remove the blank from the milling frame.
8. The milled object(s) are now removed from the plastic block and cleaned.
9. Now the casting pins, corresponding to the casting channel size, length and position according to the applicable rules, are waxed-up. Note: the object must not be waxed, because the plastic does not increase in volume during burning out (a volume increase could rupture the investment mass).
10. The object(s) is/are invested.
11. After bonding the investment mass the casting cuvette is removed from the socket and placed in the cold preheating furnace. The plastic framework is burned out at 280 °C for 45 minutes. The preheating temperature (final temperature) depends on the dental alloy that is to be cast or the recommendations of the manufacturer of the alloy.
12. The following steps (grit-blasting, cleaning, fitting, finishing, etc.) are identical to the standard treatment of precious-metal or base-metal frameworks and it is assumed that they are known. Please refer to our instructions for use of dental alloys.





For more information:
www.cercon-smart-ceramics.com

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