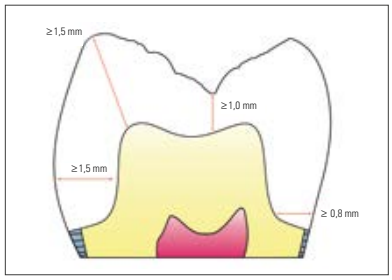
VITA SUPRINITY® PC Quick Instruction Guide

For processing VITA SUPRINITY PC, users require the CEREC or inLab software version ≥ V4.2. Users of a Sirona system that does not match this software version ≥ V4.2 should select lithium disilicate ceramic from the material menu to perform processing.

Minimum layer thicknesses	Inlay / Onlay	Veneer	Anterior crowns	Posterior crowns
				
Staining technique – incisal/occlusal	1,0	0,7	1,5	1,5
Staining technique – circumferential	1,0	0,6	1,2	1,5
Cut-back technique – incisal/occlusal	-	0,4	0,8	1,3
Cut-back technique – circumferential	-	0,6	1,2	1,3

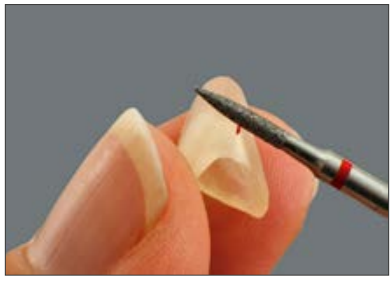
All values in mm



Material selection/Preparation and design suitable for ceramics*1

- The HT variation of VITA SUPRINITY PC is recommended for inlay/onlay restorations and veneers and the T variation for crowns.
- The principles of design suitable for all-ceramic restorations apply to VITA SUPRINITY PC, such as:
  - Transforming tensile stress into compressive stress by ensuring convex cavity bottom design.
  - Moreover, sharp edges must be avoided and round surfaces should be prepared.
  - Finally, continuous changes in the cross-section and a simple design should be achieved.

*1) Detailed information can be found in "Clinical Aspects", No.1696; www.vita-zahnfabrik.com



Reworking/Pretreatment

- Use only fine-grit diamond abrasive tools for contouring after the CAM process and finishing diamonds for prepolishing.
- Prior to crystallization, the restorations must be cleaned with the steam jet and/or in the ultrasonic bath.
- The restorations must not be sandblasted with Al_2O_3 or abrasive beads.

Firing/Crystallization

- The restorations can be crystallized in any standard vacuum furnace that supports slow cooling.
- Honeycomb firing trays and platinum pins are perfectly suitable for firing. If they are used, an auxiliary firing paste is not required.
- Other firing trays may also be used but direct contact with the firing tray must be avoided and an auxiliary firing paste is required.

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– Information concerning individual firing trays: only small quantities of paste should be applied to the pin for fixation of the restoration.
– When using fibrous pads, the temperature may vary from the reference value given (depending on the furnace that is used) and needs to be adjusted accordingly.
– Combination firing (= crystallization and combination of glaze/stains firing) is carried out at 840 °C.
– Additionally, crystallization (840 °C) can also be carried out in a first step and glaze/stains firing (800 °C) in a second step.

Crystallization firing in the VITA VACUMAT

Predry. °C	→ min.	↗ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC min.	↘ °C
400	4.00	8.00	55	840	8.00	8.00	680

* The firing chamber must not be opened during long-term cooling.

Characterization with VITA AKZENT Plus*2

– First coat the entire restoration with glaze material and then apply thin, transparent layers of effect and body materials.

– Then place the characterized restoration on the firing tray and crystallize (= in case of staining - before crystallization) or carry out stains firing (= in case of staining - after crystallization).

Individualization with VITA VM 11*2

– Cut-back can be performed using software or manually using fine-grit diamonds. Then the restoration is carefully cleaned with the steam jet.
– After crystallization, the crown is coated with VITA VM 11 materials (DENTINE/CREATIVE Kit).
– Firing is carried out at 800 °C in the vacuum furnace (first dentine firing).

*2) For detailed information about the firing temperatures, please refer to the VITA SUPRINITY PC Working Instructions, No. 1951, from version V04.

Reworking/Polishing

– Ideally, the restoration is polished using the instruments of the VITA SUPRINITY Polishing Sets (technical or clinical).
– It is mandatory to avoid generation of heat during prepolishing and high-gloss polishing.
– Reduced and uniform pressure must also be ensured.

Final result/Bonding

– The final restoration is adhesively or self-adhesively (recommended for crowns only) bonded.
– Dual-curing materials (light and chemical curing) are mainly recommended for restorations with thick walls and light curing materials for restorations with thin walls.
– Pretreatment is carried out using hydrofluoric acid gel (20 sec., e.g. with VITA ADIVA CERA-ETCH) and silane (e.g. VITA ADIVA C-PRIME).

More information can be found in the current "VITA SUPRINITY PC Working Instructions", No. 1951 and under "Bonding Materials for VITA CAD/CAM/press ceramics" at www.vita-suprinity.com.

VITA

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