

CEHANEM Classic Instructions For Use

Wax up

Minimum wall thickness 0.3 mm. Minimum with bridge abutment crowns 0.4 mm. Framework anatomically reduced with reference to planned veneering and must be appropriately stable for wider spans, no sharp transitions.

Soldering points should be sufficiently large.

Size of sprue: minimum 3 mm and 4 - 5 mm for bar sprue.

Investing

Spray wax construction with silicone and wax wetting agent to ensure torsion-free removal of wide-span wax bridges. Investment with phosphate-bonded investment compound mixed in vacuum.

Melting and casting

Follow directions of manufacturer of investment compound. Preheating temperature of heating chamber up to approx. 950°C (1742°F)

Liquidus: 1350°C (2732°F)

Casting temperature: 1500°C (2732°F)

Use only ceramic crucibles or melting bowls (for high-frequency and open flame)

Cast when casting skin ruptures.

Finishing of the framework

Do not quench cast workpiece but allow it to cool slowly to room temperature! After removal grind the alloy with medium to superfine carbide milling tools to ensure a surface totally free from contamination. The milling tools should be operated at speeds between 15 000 to 30 000 rpm. Always run the milling tool in a one-way motion.

Recommendation for polish

Trim and smooth surface with carbide milling. Trim with suited rubbers until smooth and dull surface is made out. Polish to gloss with paste suited to non-precious alloys.

Clean with ultrasonic or steamer.

Please note:

Do not use sintered diamonds, electroplated diamonds or grinding stones. They may leave impurities on the metal surface, which cannot be completely removed even by intensive sandblasting. During subsequent sandblasting with aluminium oxide (grit size approx. 130 µm) always use an angle of 45° to the metal surface. Then boil the workpiece in distilled water for 10 minutes or steam it.

Caution:

Make sure that the tip of the steam nozzle is not contaminated with wax or oil.

Avoid inhalation of dust. Use appropriate suction-system while grinding, separating and polishing. Protect yourself in using a breathing protection.

Oxide firing:

An oxide firing at 960°C (1760°F) (min. 5 minutes) can be used to check that the metal surface is fully finished. If the surface is still contaminated spotty, irregular oxide colours will appear. However, if the previous steps were correctly conducted, the oxide firing will not be required. Before veneering the oxide coating **must be** completely removed by carbide milling tools and sandblasting to ensure optimum adhesion of the ceramic.

Wash opaque

The wash firing should be 20°C (68°F) higher than the temperature recommended by the porcelain manufacturer.

Opaque firing

As specified by the porcelain manufacturer. Dentine firing and glaze firing also as specified by the porcelain manufacturer.

Allow long-term cooling.

Soldering/Welding

Keep soldering base as small as possible. Preheat it at 500°C (932°F) for 10 min. Then solder as specified by the solder manufacturer. Use flux and remove it mechanically after soldering. Do not quench workpiece but allow it to cool to room temperature. Follow the solder manufacturer's instructions. CEHANEM N is weldable very well. Use carbon free welding wire, e.g. CEHANEM welding wire 0.5 mm.

Store dry at room temperature!

Proof of conformity:**C. Hafner-Service**

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