

HERAENIUM® Pw

Instructions for use (GB)

Heraenium Pw is a cobalt chrome alloy for fabricating crowns and bridges with porcelain or acrylic facings. Heraenium Pw bonds well to porcelain and exhibits optimal physical values as well as a wide range of applications. Due to its minimal hardness, Heraenium Pw is easy and unproblematic to handle.

1. Waxing up:

Coping patterns must be at least 0.4 mm thick - this ensures that the coping remains at least 0.3 mm thick after trimming. To ensure that the porcelain is built up in a uniformly thick layer, copings and pontics must be waxed up to approximate the anatomy of natural teeth. Avoid waxing up sharp line angles or undercuts. Copings must also be 0.3 mm thick for acrylic facings. Use retention beads.

2. Attaching sprues and investing:

We recommend using a reservoir bar sprue system for bridgework. approx. 5 mm long and 3.5 mm Ø feeder sprues are attached to the palatal or lingual surfaces of the wax pattern at an angle of 45°. Each bridge unit requires its own sprue and larger molar copings require two.

The feeder sprues must always be attached to the thickest section of the pattern. They are then connected with a 5 mm Ø horizontal bar sprue.

4 mm Ø sprues are used for single units. The higher the volume of the casting, the thicker the sprues should be.

Fine - grained, phosphate - bonded, graphite and plaster-free investment for crown and bridge work, e.g. Heravest Onyx or Moldavest exact, are ideal for producing accurate castings.

3. Casting:

The correct amount of Heraenium Pw required for the casting is calculated by multiplying the weight of the wax pattern by 8.2, i.e. the density of Heraenium Pw. An ingot of Heraenium Pw weighs approx. 6.5 g.

Casting with an induction heated vacuum/pressure casting machine: The CL-IG, CL-I 95 and Heracast IQ induction heated vacuum/pressure casting machines are best suited for melting and casting this alloy. During pre-melting, the casting rings are melted until the dull film only covers approximately 1/4 of the last ingot protruding from the surface of the molten alloy. Melting is then interrupted, the casting chamber allowed to resume normal pressure and opened. The casting ring is then inserted and the main melting process commenced. The casting process is started 6 seconds after the dull film has disappeared from the surface of the molten alloy.

Casting with a motor-driven centrifugal casting machine and melting with a casting torch: Ignite the oxyacetylene gas. Open both valves fully and adjust the flame by reducing the acetylene flow rate until approximately 3 mm long blue cones appear on the orifices of the casting torch. Pressure settings for the flame: **acetylene = 0.7 bars, oxygen = 1.9 bars**. These settings will produce the neutral flame required for melting Heraenium Pw. Preheat the crucible and place the Heraenium Pw ingots in it. Hold the torch approximately 40 mm above the top edge of the crucible. Move the torch around the ingots in circles to heat them uniformly until they melt and fuse. Once the ingots have fused, start the centrifugal casting machine immediately. After casting, bench cool the casting ring. Devest the castings very carefully. Remove the investment material with care. Sandblast with aluminium oxide abrasive (110 - 125 µm).

4. Finishing and preparing for facing with porcelain:

After casting, the copings are trimmed with sharp tungsten carbide cutters in one direction only, but without exerting high pressure. Do not use stones or diamond burs. Use a dust extractor. Do not use rubber polishers on the surfaces to receive ceramic. Avoid sharp line angles and undercuts. Sandblast the surfaces with aluminium oxide (100 - 125 µm, 4 bars) followed by steam cleaning. Oxidise for 10 minutes at 950°C under vacuum. The oxide layer should have a uniform colour. Carefully sandblast the oxide on the facing surfaces with aluminium oxide (110 - 125 µm) in a non-recycling sandblaster and then clean with a steam cleaner or with hot distilled water.

Facings with HeraCeram:

1. Do not use Hera-Ceram Pre-Opaque!
2. 1. Apply a semi-masking coat of opaque and fire at 950°C for 1 min. in vacuum
3. 2. Apply a masking coat of opaque and fire at 880°C, as usual
4. Then veneer with HeraCeram as usual

5. Long-term cooling or a temper stage to suit the CTE is not required

With large-span and thicker frameworks stress release cooling is recommended: set a cooling stage with the opening of the furnace (2-4 minutes) or leaves the framework on the firing tray in the heat from the open firing chamber.

It applies the instruction metal ceramic 2/2006.

Adhere to the porcelain manufacturer's instructions for use when facing with other porcelains.

Oksidering:

950 grader i 10 min. Med vakuum! Sandblåses etterpå.

WAK: 14,3