INSTRUCTIONS FOR USE
Crowns and bridges-alloy EVO N

EVO N is a Iron-based Crowns and bridges-alloy. **EVO N** is free of beryllium and fulfils the EN ISO 22674 for dental alloys type 3. Through the low Vickers hardness of 155 HV10 result the alloy easy to mill and polish.

Composition :	**Properties:**
Ni % : 24,3	**Density** g / cm³ : 8,0
Cr % : 21,2	**Vickers hardness** HV 10 : 155
Fe % : 47,8	**Melting interval** °C : 1250-1340
Mo % : 3,3	**Casting temperature** °C : ca. 1400
Si % : 1,8	**(Rp 0.2) MPa : 240**
Cu % : 1,6	**Modulus of elasticity** GPa : ca. 200

Tensile strength MPa : 500

Tensile elongation (A5) % : 8,5

Colour : white

Recommendations for Use

Waxing up:

Wax-up with crown- and bridge- wax as usual. Prevent thickness of material lower than 0.35 mm. Use spacer foil or spurs paint on the spurs to compensate for the high contraction. Lead wax sprues indirectly. For wax sprues use round wax wires with Ø 2.0-2.5 mm for single crowns and 2.5-3.0 mm for bridges. For frames with more than 4 teeth use a distribution funnel with Ø 3.5-4.0 mm, for massive pontics to ≥ 5mm use.

Melting and Casting:

Suitable are phosphate bonded investments for crown and bridge work. Preheat the investment to about 850 to 900 °C. Hold temperature for about 30 minutes. Refer to manufacturer's instructions for use for the casting machines. For **EVO N** use an individual ceramic crucible to prevent contamination with other alloys. Clean crucible after each use to avoid residues of slag. When melting by induction heating start casting as soon as the ingots have collapsed giving an uniform melt. For melting by flame heat the ingots and give a rotary motion by use of the flame. Start casting as soon as the bath begins to move. Allow the cylinder slow air cool down to the ambient temperature and deflask.

Finishing

After trimming suitable grinding and polishing instruments for metal alloys up to high gloss.

Soldering and Welding:

Soldering before firing of the frame can be carried out with suitable NEM-solder and high temperature flux. For welding with laser use suitable NEM-welding wires.

Final Safety Notes

Metal dusts in principle are harmful. Use a dust extractor. Consider allergic hypersensitivities for technical personal and Patient to contents of the alloy. If it is suspected that it is incompatible with individual elements of this alloy, it should not be used since the product contains nickel.

Warranty These application recommendations are based on own experiments and experiences and can therefore only be regarded as guidelines. The user is responsible for the correct processing of the alloy itself