

December 14, 2012

## ZEO CE LIGHT

### **【 Precautions and Recommendations for Use 】**

ZEO CE LIGHT is designed to achieve outstanding quality not only in its mechanical properties but also its color tones. Please follow the instructions carefully and use the product as instructed to ensure that this product achieves optimal performance.

Yamamoto Precious Metal Co., Ltd. assumes no responsibility whatsoever for any direct or indirect damage, loss, prejudice or emotional distress caused by misuse of our products or failure to follow the instructions provided in our manual.

Please read the instructions carefully before use.

#### **【 Precautions and important basic cautions 】**

- Avoid mixing different alloys.
- In cases where non-precious alloys are used, only alloys recommended by Yamamoto Precious Metal Co., Ltd. should be used.
- In cases where non-precious alloys are used, do not recast the alloys once used.
- Use only alloys without cast defects.
- Do not use the product in combination with other brand ceramic materials.
- Any usages other than those specified in the instruction manuals must be avoided.
- Non-precious alloys used with this product must have a CTE value of  $14.1 \times 10^{-6} \text{K}^{-1}$  (25 - 500°C) •  $14.2 \times 10^{-6} \text{K}^{-1}$  (50 - 500°C) as well as a Vickers hardness value of not more than HV320.
- The condition of crowns after firing may change or vary depending on whether the product is used for a single crown or a bridge, the number of crowns fired at once, or depending on furnace types and shapes or positions of crowns. Check the conditions under trial firing to confirm appropriate firing conditions.
- To avoid any contamination in the product, remove powder from the bottle in small amount, and do not replace the powder in the bottle once taken out.

The above precautions and the following recommendations should be followed:

#### **【 Recommendations 】**

- Since Ni-Cr alloys basically have low thermal conductivity, an its hardness varies

from lot to lot, a higher temperature and a longer Hold Time are necessary to avoid insufficient firing and to obtain enough strength.

■ The following recommended firing schedule is a rough guideline, not precise data.

Please note that the temperature and the hold time should be adjusted depending on a furnace and clinical cases.

	Drying time (min)	Start temp. (°C)	Vacuum	Heat rate (°C/min)	Firing temp. (°C)	Hold time (min: air)
Opaque	5~10	450~500	○	60	940	2~4
Dentine • Enamel	6~9	550~600	○	60	920	2~4

■ The temperature of firing program for Super Opaque and Opaque should be 940°C and set Hold Time for about two(2) minutes, and also, the temperature of firing program for Dentine and Enamel should be 920°C and set Hold Time for about two (2) min. Please set Hold Time at 2-3 min. for crowns from single to four crowns; set 3-4 min. for crowns from five to full mouth crowns. In cases where cracks occur while the above precautions and recommendations are followed, the cracks can be repaired by firing once again with Hold Time for more than three (3) min.

■ After preparation of metal, sandblast the surface with alumina powder (250 μ m) or sandblast evenly with a pencil-blaster at more than 3 barometric pressures.

■ Wash metal frames with purified water before applying Body materials (Cervical and Dentine) after Super Opaque and Opaque are fired.

■ Cool them down to about 600°C after firing. Leave them on a firing table until the indicated temperature shows under 600°C.

End of Note