

บริษัท อัมรินทร์เซรามิกส์คอร์ปอเรชั่น จำกัด

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Technical Information

Selenium and Cadmium Ready Glaze

Application

The selenium red and cadmium yellow glaze are special glasses, whose application properties cannot be compared to other glazes. Constant processing conditions are mandatory for a satisfying result. Anti-setting agents and glues can be added, depending on the kind of application. The glazes should be wet milled in a separate ball mill, which is only used Se/Cd glazes, in order to avoid contamination. The prepared glaze slip should be sieved and processed through a magnetic separator. Also only the amount of glaze needed for a few days should be prepared, because a long shelf-time can also affect the results.

Contamination of all kinds, especially metal abrasion from the equipment and containers (e.g. Fe, Cu, Cr, Zn a.s.o.) has to be avoided by all means, because this might cause black spots on the glaze surface.

The Thermal expansion coefficient of the glaze is relatively high. The safest and best solution for a perfect result without cracks or black spots on the glaze surface is the use of the special body with a high C.T.E and without pyrite, copper pyrite, or metallic pieces.

Firing

The result after firing the Cd/Se glazes strongly depends on the firing time, and the kiln atmosphere. The best is a short firing cycle, a good air circulation in the kiln, and a big space between pieces in the kiln. The kiln load should be only Cd/Se glaze because fumes of other glazes (e.g. copper containing glazes) might influence the firing result negatively.

Lead and Cadmium

If applied properly, the glazes release only a very limited amount of lead and cadmium. But the release strongly depends on the firing condition and other parameters, which are difficult to define. There fore we cannot guarantee certain limits that are demanded by some regulations (DIN EN 1388.1 and 1388.2). If the glazes are used for food containers, glazed ceramic piece out of production have to be analysed for lead and cadmium release.

Product code	Colour	Temperature Range(°C)	Lead Weight-%	CTE X10 ⁻⁷ /K
RG-6003	Yellow	990-1030	<3	80
RG-6007	Red	990-1020	<4	77
RG-6940	Green	990-1030	<3	80
RG-6941	Lemon Yellow	990-1030	<3	80
RG-6950	Orange Red	990-1020	<3.5	79
RG-6951	Orange	990-1030	<3.5	79