

## **58971 - 58979 Cristobalite**

### **Typical Chemical Analysis of the Basic Material**

SiO <sub>2</sub>	97.00 %
Al <sub>2</sub> O <sub>3</sub>	0.50 %
Na <sub>2</sub> O, K <sub>2</sub> O, MgO	1.00 %
CaO	1.00 %
Fe <sub>2</sub> O <sub>3</sub>	0.25 %

### **Physical Data**

Spec. Weight:	2.4 g/cm <sup>3</sup>
Bulk density:	1.000 - 1.300 kg/m <sup>3</sup>
Alkaline reactivity:	0
Glaze:	ceramic
Color:	metallic oxide

Color stability: Accor. ATSM G23-81 & ASTM G5 Test

Standard colors: Yellow, pink, orange, dark blue, dark green, pale blue, pale green, brown, gray, black, white

Cristobalite is a natural quartz modification. Cristobalite is formed by heating to about 1500°C.

Many spinel pigments are formed from aqueous solution in a high-temperature reaction. What could be more obvious than to combine the two. Quartz sand is wetted with the appropriate metal salt solutions and then fired. Here, in a relatively simple way, the cristobalite grain can be coated with a colored skin. This coating is of course not comparable to a true cobalt blue or nickel titanium yellow. A few dark or uncolored particles hardly change the colored impression.

This colored cristobalite sand can then be used, for example, for the production of permanently colored plasters, as an additive in the restoration of colored mortars, and generally as a highly light- and chemical-resistant sand. The sand is produced in the grain size 0.5 -1 mm.