

## Kiln Furniture “Ceramic Rollers”

Ceramic rollers are mainly developed as carriers in roller kilns and can be produced in different diameters and sizes. They are also used in the industrial furnaces to support the heating elements.

The basic characteristics expected from the ceramic roller include excellent non-porous structure, high temperature resistance, thermal shock, bending and compressive strength. Presence of all these characteristics together harmoniously improves long service life and reduces maintenance costs.

The rollers can also be produced according to the required parameters and used in the different applications and furnace atmospheres.



### Main Properties

|  |                                |
|--|--------------------------------|
| Chemical Composition, %                        |                                |
| SiO <sub>2</sub>                               | 21 - 23                        |
| Al <sub>2</sub> O <sub>3</sub>                 | 70 - 72                        |
| ZrO <sub>2</sub>                               | 4 - 7                          |
| Fe <sub>2</sub> O <sub>3</sub>                 | 0.3 - 0.4                      |
| Density, g/cm <sup>3</sup>                     | 2.5 - 2.7                      |
| Porosity, %                                    | 15 - 20                        |
| Water Absorption, %                            | 6 - 7.5                        |
| Bending Strength, (at 20°C), MPa               | 50 - 65                        |
| (at 1350°C), MPa                               | ≥ 40                           |
| Thermal Expansion Coefficient, (20°C - 1000°C) | 5.7 - 6.1x10 <sup>-6</sup> /°C |
| Thermal Shock Resistance                       | Excellent                      |
| Maximum Operating Temperature, °C              | 1350                           |

The values given herein are typical average values obtained in accordance with standard test methods and subject to normal manufacturing variations. They are supplied as technical data and may change without notice. Contact our company to obtain detailed information.