
About Ceramic Rollers



Ceramic roller is a kind of refractory material in roller kiln, as the role of bearing and transmission in the furnace. With the development and production of ceramic, roller kiln is widely used in building sanitary ceramics, daily porcelain and specialty ceramics. The requirements of refractory material used in furnace is continuous improvement, especially for strength and high temperature mechanical properties of roller presented updated requirements. Alumina ceramic rollers is the development trend for ceramic rollers, because they fully meet the various needs of ceramic tile production, with the other advantages which other ceramic roller can not be of.

Ceramic rollers project is a key component of modern industrial track kilns, and can transmit and bear ceramic products at temperatures of up to 1400 °C.

Alumina ceramic roller has good high temperature resistance, hardness and carrying capacity is very strong, Alumina ceramic roller is widely used in high temperature furnace. It can be used to fire wall tile, glazed floor tile, sanitary ware and so on.



Main Usage

- 1. Heat treatment furnace and toughened furnace
- 2. Inner liner tube and heating tube in electric furnace

Features

- 1.Great mechanical strength
- 2.High softening temperature
- 3.Good resistance to thermal impact
- 4.Small thermal expansion coefficient
- 5.Good chill and abrupt heat properties
- 6. Resistance to acid and alkali corrosion



Properties of Ceramic Rollers

Item	Unit	VH95	VH90	VH85	VH80	VH++
Al ₂ O ₃ +ZrO ₂	%	80~82	78~80	76~78	80~82	88
Apparent porosity	%	16~20	17~21	18~22	16~20	18
Water absorption rate	%	6.5~8.5	7.9~9.0	7.5~9.5	8.0~10.0	7.5
Density	g/cm ³	2.65~2.70	2.55~2.65	2.50~2.60	2.45~2.55	2.68
Flexural strength	Mpa (20℃)	65~70	60~65	55~60	50~55	68
The max using temperature	℃	1350	1330	1300	1250	1400
Load softening start temperature	℃ (0.2MPa)	1590	1580	1560	1550	1600
Thermal expansion coefficient	×10 ⁻⁶ /℃ (25~1000℃)	5.7	5.7	5.6	5.5	5.7
Straightness	mm	≤0.07%				
Tolerance of OD	mm	+0.3~-0.7(≥Φ50)		+0.3~-0.5(<Φ50)		
Roundness	mm	O<0.5(≥Φ50)		O<0.4(<Φ50)		