

The invention relates to refractory construction materials for the production of heat-resistant cordierite-based ceramics. A charge for producing cordierite ceramics contains magnesium oxide, pyrophyllite and kaolin, magnesium fluoride and aluminum hydroxide. In optimal embodiment the charge contains chemically activated kaolin and pyrophyllite, it contains finely dispersed pyrophyllite with particle size of 2-4  $\mu\text{m}$ . Use of the invention allows preparing cordierite ceramics with oriented layered structure with low value of thermal linear expansion coefficient and higher mechanical strength and heat resistance to the influence of cyclic alternating thermal loads.