MgO Magnesium oxide

MgO Magnesium oxide is an excellent single crystal substrate, widely used in the production of ferroelectric film, magnetic film, light point film and high temperature superconducting film. Because of its small dielectric constant and loss in microwave band, it is one of the important high temperature superconducting thin film in current industrialization. It can be used to make high temperature superconducting microwave filter and other devices needed for mobile communication devices.

Materials Properties:

Growing directions	arc process
Crystal structure	cube
Lattice constant	a=4.130 Å
Melting point	2800（℃）
Fineness	99.95%
Density	3.58（g/cm^3）
Hardness	5.5（mohs）
Thermal expansion coefficient	11.2x10^{-6}（/℃）
Crystal cleavage surface	<100>
Optical transmission	＞90%（200~1000nm）
Dielectric constant	ε= 9.65
Heat conductivity	36 W/m.k @ 300°K
Size	5x5，10x10，20x20，30x30mm ,Ø50.8 mm
Thickness	0.5mm，1.0mm
Polishing	Single or double-sided
Crystal orientation	<001>, <110>,<111>
Crystal face orientation precision:	±0.5°
Edge orientation precision:	2° (up to 1°)
Ra:	≤5Å（5μm×5μm）
pack	100 clean bag, 1000 ultra-clean room