

Comparison of Our Zirconia Material

1. Chemical composition

Components	HT	HT-plus	ST	UT
ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	≥99%	≥99%	≥99%
Y ₂ O ₃	4.5%-6.0%	4.5%-6.0%	4.5%-6.0%	9%-10%
Al ₂ O ₃	<0.25%	<0.25%	<0.15%	<0.05
Other Oxides	<0.15	<0.15	<0.15	≤0.05

2. Physical characteristics

Properties	HT	HT-plus	ST	UT
Density before sintering (g.cm ⁻³)	3.10-3.20	3.10-3.20	3.10-3.20	3.15-3.25
Density after sintering (g.cm ⁻³)	6.08-6.10	6.08-6.10	6.08-6.10	6.05-6.07
CTE(25-500°C)(K ⁻¹)	10.5	10.5	10.5	10.5
Flexural strength after sintering(Mpa)	1350	1350	1200	650
Accelerated aging surface monoclinic phase content	<15%	<15%	<15%	<15%
Light transmittance	35%	37%	44%	49%
Chemical solubility after sintering(μ g.cm ⁻²)	<100	<100	<100	<100
Cytotoxicity	0 Level	0 Level	0 Level	0 Level
Radioactivity(Bq.g ⁻¹)	<0.1	<0.1	<0.1	<0.1
Sintering temperature(°C)	1500-1550	1500-1550	1480-1530	1450-1530

3. Range of application

Zirconia type	HT	HT-plus	ST	UT
Recommended application	Coping Crown & Framework	Coping Crown & Framework	Full contour & Bridge	Coping Crown & Full contour
Matched coloring liquid	HT-plus 16 shade liquid	HT-plus 16 shade liquid	ST 16 shade liquid	UT-A1,A2,A3, B1,B2,B3
Coloring liquid Version	Version 1	Version 1	Version 1	Version 1

4. Sintering curve

See "Comparison of Our Zirconia Material_02.xlsx".