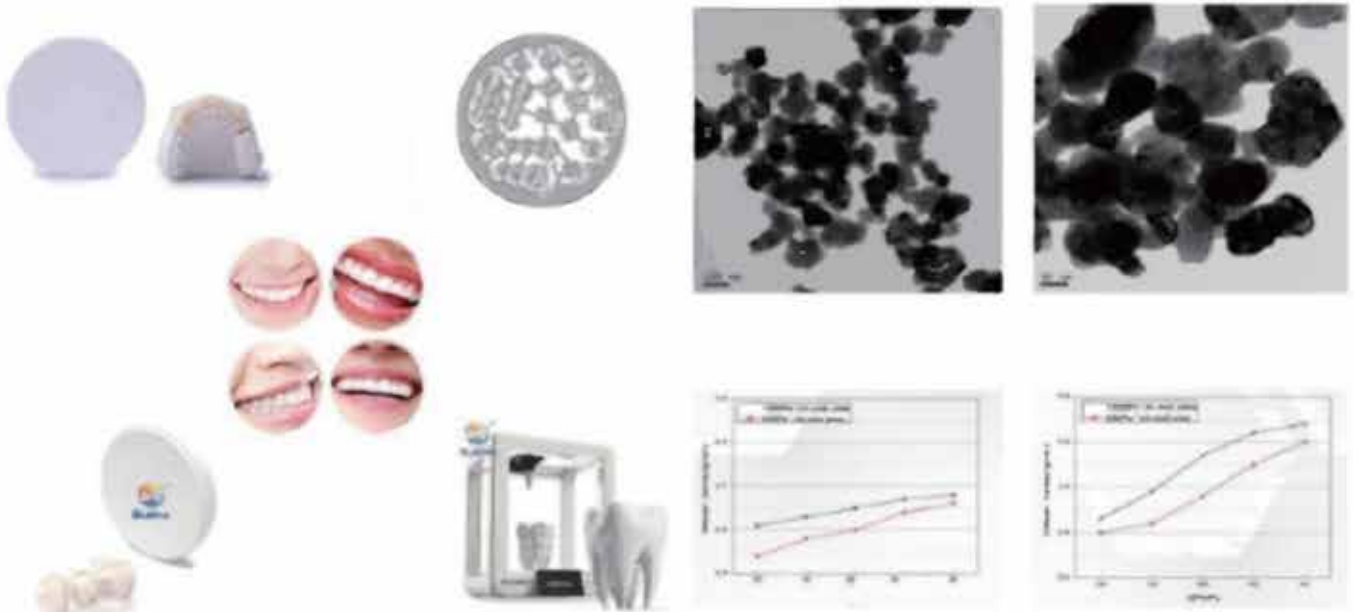


Dental Yttrium stabilized Zirconia

Yttrium Stabilized Zirconia has High Hardness, Better Penetration, Uniform Particle Size and Better Toughness when used in dentistry.

Application



Zirconia powders for dental use

Technical Data Sheet

INDEX	UNITE	SY-3YB-1	SY-3YB-3	SY-3YB-Y	SY-3YB-P	SY-3YS-G	SY-4YB	SY-4YB-Y	SY-4YB-P	SY-4YS-G	SY-5YB	SY-5YB-Y	SY-5YB-P	SY-5YS-G	METHOD
LOI	wt.%	<3.0	<3.0	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<1.0	Tu-DSC
Binder	wt.%	2.5	2.5	2.5	2.5	---	2.5	2.5	2.5	---	2.5	2.5	2.5	---	---
Y2O3	wt.%	5.5±0.2	5.5±0.2	5.5±0.2	---	5.5±0.2	7.2±0.2	7.2±0.2	---	7.2±0.2	9.2±0.2	9.2±0.2	---	9.2±0.2	XP
Al2O3	wt.%	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	XP
SiO2	ppm	<300	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150	<150	ICP
Fe2O3	ppm	<300	<100	---	<100	<100	<100	---	<100	<100	<100	---	<100	<100	ICP
Seer	mg/g	13±1	11±1	8±1	8±1	8±1	10±1	8±1	8±1	8±1	8±1	8±1	8±1	8±1	---
Bulk Density	g/cm ³	1.3±0.2	1.3±0.1	1.3±0.1	1.3±0.1	1.2±0.1	1.3±0.1	1.3±0.1	1.3±0.1	1.2±0.1	1.3±0.1	1.3±0.1	1.3±0.1	1.2±0.1	ISO 14701: 2011
Sintered Density	g/cm ³	>6.05	>6.05	>6.05	>6.30	>6.06	>6.05	>6.04	>6.34	>6.03	>6.04	>6.02	>6.40	>6.02	ISO 6872: 2015
Bending Strength	MPa	>1100	>1100	>950	>950	>1100	>900	>850	>1750	>900	>600	>550	>550	>600	ISO 14704: 2016
Hardness	Hv5	>1200	>1200	>1200	>1200	>1200	>1200	>1200	>1200	>1200	>1200	>1200	>1200	>1200	ISO 14705: 2016
Translucency	%	39	41	---	---	---	44	---	---	---	48	---	---	---	ISO 13469-2: 2006
Color	---	White	White	Yellow	Pink	Gray	White	Yellow	Pink	Gray	White	Yellow	Pink	Gray	---
Sintering Temperature	°C	1500	1500	1500	1500	1500	1480	1480	1480	1480	1500	1500	1500	1500	---
Rapid Sintering	---	X	O	O	O	O	O	O	O	O	O	O	O	O	---
Multilayer Block	---	X	O	O	O	O	O	O	O	O	O	O	O	O	---

SYB: Powder with binder
SY-S: Powder without binder