

Zirconia Implant System

Total Solution for Function and Esthetics

www.zibone.com



About COHO

Founded in 2001, Coho Biomedical Technology is a leading manufacturer of high precision ceramic medical products in the world. Coho's advanced technologies have obtained several patents. This lays the strong foundation for the successful development of ZiBone – Zirconia ceramic implants. ZiBone is the result of joint efforts between universities, private clinicians, and the technologies of Coho.

Coho recognizes that nowadays patients are not satisfied merely with the function of restorations but also demand esthetics. With this mind, Coho develops a total esthetic solution for implant treatments: ZiBone ceramic implants for both function and esthetics, ceramic drills for cutting efficiency and reducing heat generation, and our milling center for producing fixed temporary and Zirconia ceramic prostheses for accurate fit and esthetics. Zirconia is a material of choice for esthetics, biocompatibility, and mechanical properties.

Coho attaches great importance to quality. We are subject to regulation of its quality assurance system under ISO 13485/ISO 9001 at each stage of its operations. All of our products must go through stringent quality control to make sure that they perform to specification and patient safety requirements. ZiBone ceramic dental implants were approved by US FDA, CE, and TFDA.

Dental Implants



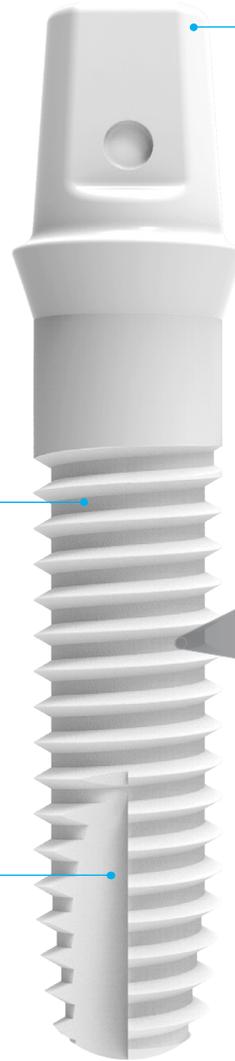
ZiBone Zirconia Implant

The Next Generation of Implants

ZiBone is a one-piece zirconia implant (fixture and abutment in one piece) made of extremely strong high-purity zirconia ZrO₂-TZP conforming to ISO 13356, which has been used for years as orthopedic implant material. Zirconia is an ideal material for making implants. Compared to aluminum oxide and titanium, zirconia possesses superior mechanical properties that make it stronger, less brittle, resist to fracture and deformation.

The patent advanced ceramic technologies of Coho enable ZiBone to be produced to high precision, and make its surface nanoporous that induces osseointegration better than other titanium implants.

The cylindrical body and conical tip design enables ZiBone to achieve the highest possible primary stability. The fine neck thread increases the bone contact area and initial stability. Threads in the implant body and wide pitch design provide stability and promote osseointegration.



Optimal abutment design for CAD/CAM prosthetics

One-piece design eliminates micro gap to prevent bone loss

Bone chip reservation groove

Roughened surface enhances osseointegration

ZiBone Causes No Metallic Allergy

Studies clearly demonstrate that titanium can induce clinically relevant hypersensitivity to some patients. However, zirconia is biocompatible and causes no metal allergy. ZiBone zirconia implants and instruments are made of zirconia, offering a metal free treatment.

ZiBone Meets Esthetic Demand

Nowadays patients are not merely satisfied with the function of restorations but also their esthetic results. They want to avoid embarrassing smiles. ZiBone is designed to meet this growing demand. ZiBone is white color. It does not show dark shadow in thin soft tissue or dark margin when gum line retreats as mostly found in treatments with titanium implants. Besides that, when zirconia crown/bridge is used on ZiBone, the whole restorations look more natural and esthetic as zirconia allows light to pass through like natural tooth. Metal blocks passage of light.



Same day immediate temporization

ZiBone's One-Piece Design Simplifies Procedure

ZiBone's one-piece implant design does not require a separate abutment. It can simplify the procedure and shorten clinical time that is required in two-stage technique. Needless to say, it makes life easy for both patients and dental professionals.

ZiBone Enhances Long-Term Clinical Success

Reduce Chance of Peri-implantitis

Peri-implantitis has been one of the main causes of implant failure. ZiBone is designed to reduce this possibility. Thanks to its one-piece design which has no micro-gaps between fixture and abutment. It can prevent pathogenic bacteria from colonization. On top of it, its smooth neck surface makes it less susceptible to the accumulation of pathogenic bacteria. Zirconia is known to be tissue friendly. Soft tissue attaches more readily to ceramic implants forming protection against penetration of pathogenic bacteria that causes peri-implantitis.



Excellent esthetics without metal colour

High Bone-Implant Contact

Studies have shown that zirconia integrates with bone tissue similar to titanium. Early loading is possible due to its one-piece design when bone conditions allow.



Superior Mechanical Properties

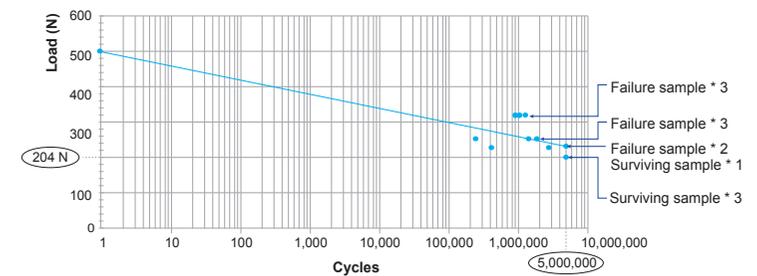
ZiBone has been subject to various tests to verify its performance under different mechanical conditions. The results show that ZiBone has mechanical properties superior to titanium and aluminum oxide. It means that ZiBone performs well in clinical situations.



5 million cycles fatigue testing

Quality Guarantee

	Physical Properties	Requirements
1	4-Point Flexural Strength	≥ 800 MPa
2	Fatigue Strength (5,000,000 Cycles)	≥ 320 MPa
3	Radiation	0.0043 Bq/g
4	High Biocompatibility	Conform to ISO 7405



ISO 14801 Fatigue Testing

CAD/CAM Digital Dental Technology



Zirconia Disk

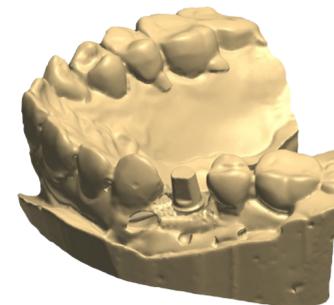
Zirconia Disk

The ZiBone zirconia disk is manufactured through press-forming zirconia powder from Japan using high precision equipment, making ZiBone the best option for crafting all-ceramic crowns.

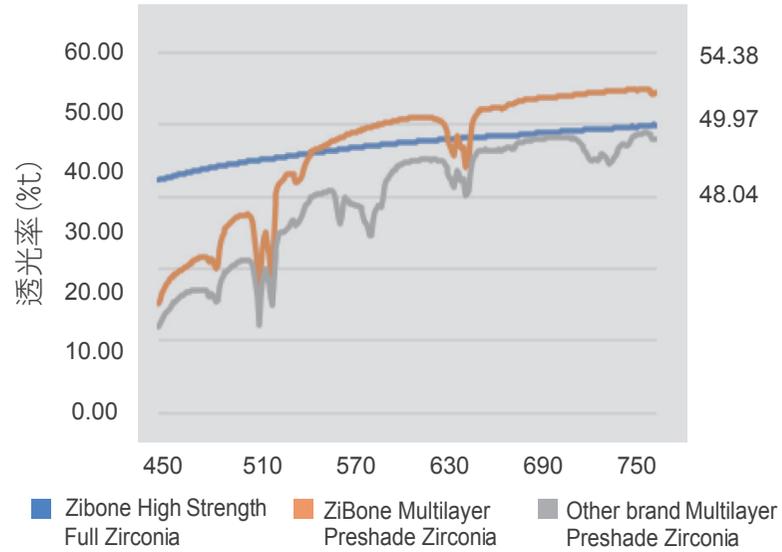


CAD/CAM Digital Dental Technology

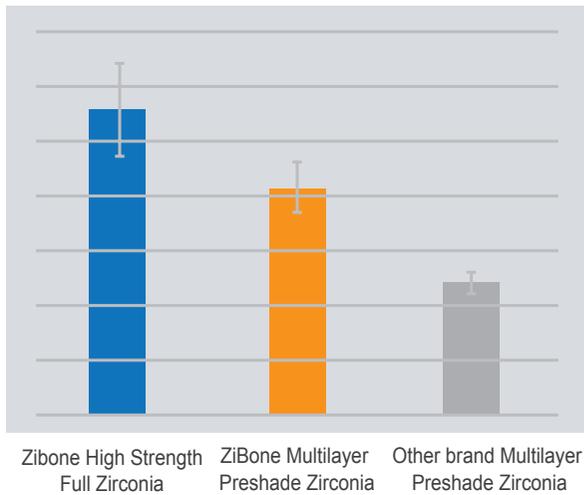
The emergence of digital and high-performance zirconium oxide materials allowed a greater degree of automation for the manufacturing of prostheses. Dental technicians of the Dental Technology Center of COHO Biomedical Technology provide total solutions for cosmetic procedures from image scanning to the preparation of the dental crown, saving the precious time of physicians and our clients.



Transmittance



Flexural Strength



DesignationU	nits	TZP
Components		ZrO ₂ /Y ₂ O ₃
Composition%		95/5
Density	g/cm ³	6.05
Open porosity	%0	
Grain size (mli)	μm	0.4
Hardness VickersH	V	1200
Hardness Mohs	-8	
Compressive strength	MPa	2000
Flexural strength	MPa	1000
Young's modulus	GPa	200
Fracture toughness K _{1C}	Mpa√m	8
Posson ratio	-0	.31
Max. operating temperature	°C	1000
Thermal expansion (20-1000°C) ¹	10 ⁻⁶ /K	0
Thermal conductivity	W/mK	2.5
Specific heat	J/kgK	500
Shaping procedures:		
Isostatic pressing		X
Die pressing		X
Slip casting		
HIPX		



Zibone High Strength Full Zirconia



ZiBone Multilayer Preshade Zirconia



Other brand Multilayer Preshade Zirconia

Pediatric Crowns



ZiBone Pediatric Crowns

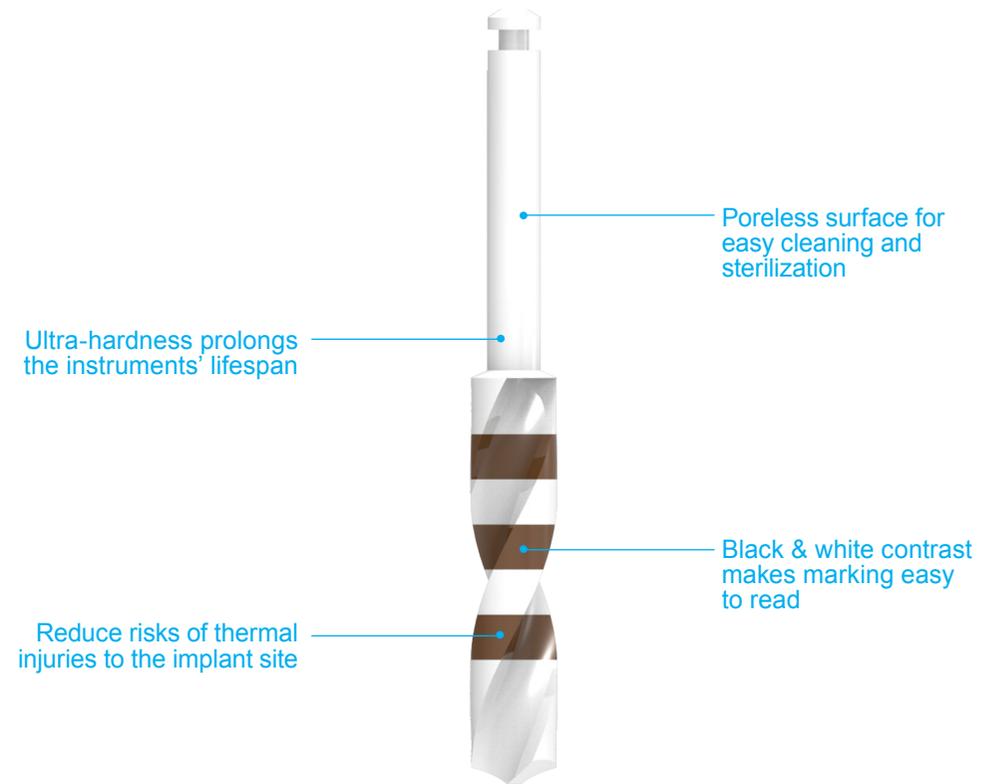
ZiBone Pediatric Crowns are made from FDA-approved zirconia materials. The coloration of zirconia is extremely close to that of natural teeth, and the material itself has demonstrated the highest level of biological compatibility with the human body. Zirconia crowns are now commonly used in dental clinical applications, and user experiences have shown that zirconia crowns feature improved hardness and durability compared to other types of dental crowns. Before zirconia crowns, pediatric dentistry commonly used plastic and stainless steel as materials for repairing primary teeth crowns. However, there are currently no alternative materials capable of replacing the outstanding aesthetics, biocompatibility and product durability offered by 100% zirconia crowns.



Implant Drills

ZiBone Implant Drills

ZiBone implant drills are made from the same zirconia material as ZiBone implants. Its hardness is only second to diamond, which makes them wear resistance. The sharp blades also minimize heat generation during osteotomy, preventing excessive thermal damage to bone tissue, resulting in a faster bone recovery process. Ceramic surgical tools also have the advantage of high biocompatibility, rust-free, and easy cleaning and disinfection.



Detachable Zirconia Blade

Detachable Zirconia Blade

Product Features

1. Detachable zirconia blade
2. Made from zirconia that has passed ISO10993 biocompatibility examination.
3. Highly abrasion resistant material with great hardness and strong cutting force.
4. Can endure high temperature autoclave sterilization and has long service life.
5. Highly resistant to acid and alkali corrosion, high density, excellent insulating quality, low friction coefficient, low optical absorption coefficient and high chemical stability.
6. Stainless steel handle, streamline design and anti-slip management for ease of applying force.





pointed tip



never rusts



non-sparking



non-magnetic



no oil coating



non-conductive



chemically inert



safer than traditional blades



#11



#12



#12D



#15



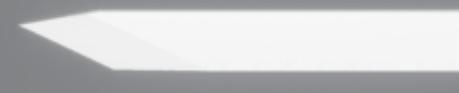
#15C



#23



#63



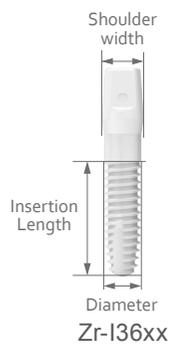
#65



#69



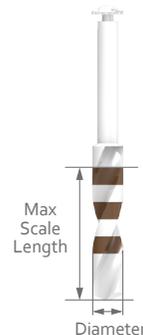
Specifications



Zirconia Dental Implant

Model Name	Diameter	Shoulder Width	Insertion Length	Final Drill
Zr-I3608	Ø3.6	4.1	8.0	2.8
Zr-I3610	Ø3.6	4.1	10.0	2.8
Zr-I3611	Ø3.6	4.1	11.5	2.8
Zr-I3613	Ø3.6	4.1	13.0	2.8
Zr-I3614	Ø3.6	4.1	14.5	2.8

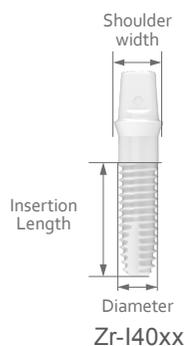
(Unit:mm)



Twist Drill

Model Name	Diameter	Max Scale Length
Zr-D2316	Ø2.3	16
Zr-D2816	Ø2.8	16
Zr-D3416	Ø3.4	16
Zr-D3816	Ø3.8	16
Zr-D4316	Ø4.3	16

(Unit:mm)



Zirconia Dental Implant

Model Name	Diameter	Shoulder Width	Insertion Length	Final Drill
Zr-I4008	Ø4.0	4.8	8.0	3.4
Zr-I4010	Ø4.0	4.8	10.0	3.4
Zr-I4011	Ø4.0	4.8	11.5	3.4
Zr-I4013	Ø4.0	4.8	13.0	3.4
Zr-I4014	Ø4.0	4.8	14.5	3.4

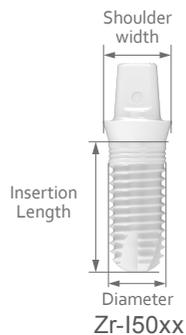
(Unit:mm)



Healing Cap

Model Name	Diameter	Applicable Implant
PK-H3665	Ø6.5	Zr-136xx
PK-H4070	Ø7.0	Zr-140xx
PK-H5075	Ø7.5	Zr-150xx

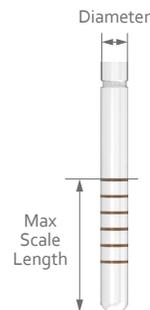
(Unit:mm)



Zirconia Dental Implant

Model Name	Diameter	Shoulder Width	Insertion Length	Final Drill
Zr-I5008	Ø5.0	6.0	8.0	4.3
Zr-I5010	Ø5.0	6.0	10.0	4.3
Zr-I5011	Ø5.0	6.0	11.5	4.3
Zr-I5013	Ø5.0	6.0	13.0	4.3
Zr-I5014	Ø5.0	6.0	14.5	4.3

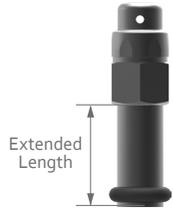
(Unit:mm)



Depth Gauge

Model Name	Diameter	Max Scale Length
Zr-G2316	Ø2.3	16
Zr-G2816	Ø2.8	16
Zr-G3416	Ø3.4	16

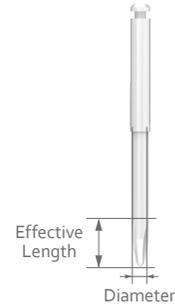
(Unit:mm)



Implant Adaptor

Model Name	Extended Length
Me-A4815	4.5
Me-A4821	10.5

(Unit:mm)



Point Drill

Model Name	Diameter	Effective Length
Zr-P2017	Ø2.0	5

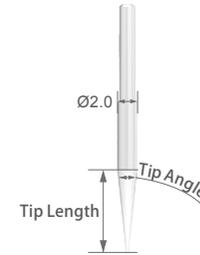
(Unit:mm)



Implant Driver

Model Name	Extended Length
Me-D4822	6
Me-D4825	9

(Unit:mm)



Soft Tissue Trimmer

Model Name	Tip Length	Tip Angle
Zr-V2045	4.5	20
Zr-V2055	5.5	20
Zr-V2085	8.5	12

(Unit:mm)

Other Products



Metal Implant Analog



PK-I5075
Impression Cap



Me-L1833
Drill Extension

Me-TRC50
Torque Wrench



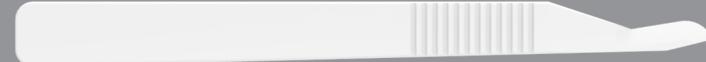
Zr-TWZ3
Ceramic Forceps



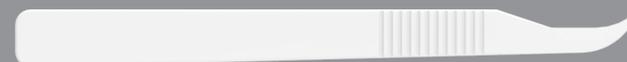
Zr-GR3F
Ceramic Periosteal Elevator



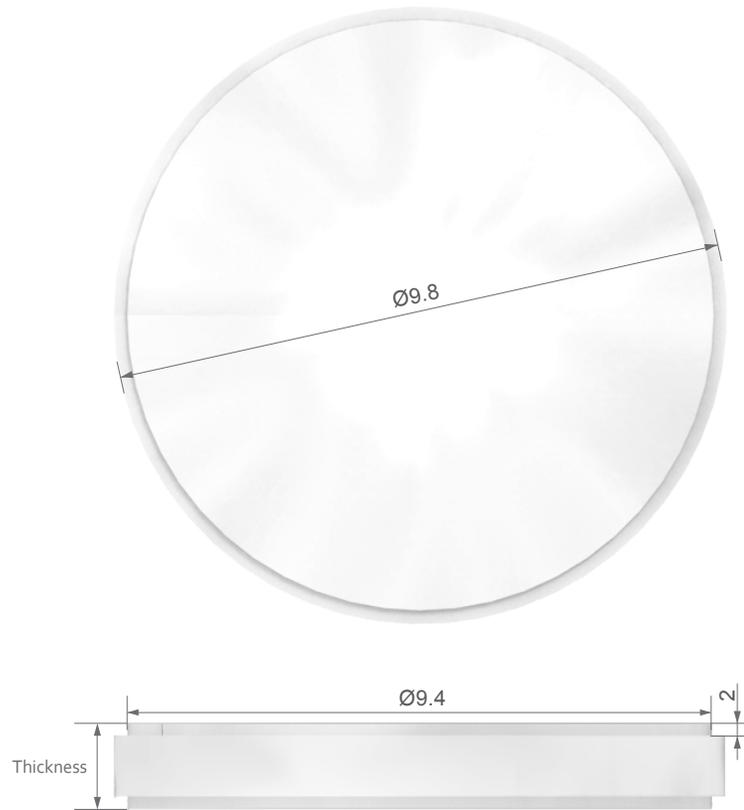
Zr-K15F
Ceramic Scalpel No15.



Zr-K12F
Ceramic Scalpel No12.



Zirconia Disk



Item	Item Number	Specification		
		Diameter	Thickness	Color
ZiBone Multilayer Preshaded Zirconia	Zr-C9814-A2	9.8	14	A0/A1.5/A2 Multilayer
	Zr-C9816-A2		16	
	Zr-C9818-A2		18	
	Zr-C9820-A2		20	
	Zr-C9814-A3	9.8	14	A1/A2.5/A3 Multilayer
	Zr-C9816-A3		16	
	Zr-C9818-A3		18	
	Zr-C9820-A3		20	
ZiBone High Strength Full Zirconia	Zr-B981 4	9.8	14	White
	Zr-B981 6		16	

Pediatric Crowns-Standard

Catalog No.	Applicable Dental Notation	Code	Mesiodistal Width (mm)
Zr-TURA2	Maxillary central incisor	A2	6.6
Zr-TURA3		A3	7.3
Zr-TURA4		A4	7.3
Zr-TURA5		A5	8.1
Zr-TURA6		A6	8.1
Zr-TURA7		A7	8.6
Zr-TURB2		Maxillary lateral incisor	B2
Zr-TURB3	B3		5.8
Zr-TURB4	B4		5.8
Zr-TURB5	B5		6.6
Zr-TURB6	B6		6.6
Zr-TURB7	B7		7.4
Zr-TURD2	Maxillary 1st primary molar		D2
Zr-TURD3		D3	7.4
Zr-TURD4		D4	7.4
Zr-TURD5		D5	7.7
Zr-TURD6		D6	7.8
Zr-TURD7		D7	8.3
Zr-TURE2		Maxillary 2nd primary molar	E2
Zr-TURE3	E3		9.8
Zr-TURE4	E4		10.2
Zr-TURE5	E5		10.6
Zr-TURE6	E6		10.9
Zr-TURE7	E7		11.2
Zr-TLRD2	Mandibular 1st primary molar		D2
Zr-TLRD3		D3	8.4
Zr-TLRD4		D4	8.8
Zr-TLRD5		D5	9.1
Zr-TLRD6		D6	10
Zr-TLRD7		D7	10
Zr-TLRE2		Mandibular 2nd primary molar	E2
Zr-TLRE3	E3		10
Zr-TLRE4	E4		10.3
Zr-TLRE5	E5		10.8
Zr-TLRE6	E6		11.2
Zr-TLRE7	E7		11.7

Catalog No.	Applicable Dental Notation	Code	Mesiodistal Width (mm)
Zr-TULA2	Maxillary central incisor	A2	6.6
Zr-TULA3		A3	7.3
Zr-TULA4		A4	7.3
Zr-TULA5		A5	8.1
Zr-TULA6		A6	8.1
Zr-TULA7		A7	8.6
Zr-TULB2		Maxillary lateral incisor	B2
Zr-TULB3	B3		5.8
Zr-TULB4	B4		5.8
Zr-TULB5	B5		6.6
Zr-TULB6	B6		6.6
Zr-TULB7	B7		7.4
Zr-TULD2	Maxillary 1st primary molar		D2
Zr-TULD3		D3	7.4
Zr-TULD4		D4	7.4
Zr-TULD5		D5	7.7
Zr-TULD6		D6	7.8
Zr-TULD7		D7	8.3
Zr-TULE2		Maxillary 2nd primary molar	E2
Zr-TULE3	E3		9.8
Zr-TULE4	E4		10.2
Zr-TULE5	E5		10.6
Zr-TULE6	E6		10.9
Zr-TULE7	E7		11.2
Zr-TLLD2	Mandibular 1st primary molar		D2
Zr-TLLD3		D3	8.4
Zr-TLLD4		D4	8.8
Zr-TLLD5		D5	9.1
Zr-TLLD6		D6	10
Zr-TLLD7		D7	10
Zr-TLLE2		Mandibular 2nd primary molar	E2
Zr-TLLE3	E3		10
Zr-TLLE4	E4		10.3
Zr-TLLE5	E5		10.8
Zr-TLLE6	E6		11.2
Zr-TLLE7	E7		11.7

Pediatric Crowns-Narrow

Catalog No.	Applicable Dental Notation	Code	Mesiodistal Width (mm)
Zr-TURND2	Maxillary 1st primary molar	<u>ND2</u>	5.5
Zr-TURND3		<u>ND3</u>	6.4
Zr-TURND4		<u>ND4</u>	6.4
Zr-TURND5		<u>ND5</u>	6.7
Zr-TURND6		<u>ND6</u>	6.8
Zr-TURND7		<u>ND7</u>	7.3
Zr-TLRND2		Mandibular 1st primary molar	<u>ND2</u>
Zr-TLRND3	<u>ND3</u>		7.4
Zr-TLRND4	<u>ND4</u>		7.8
Zr-TLRND5	<u>ND5</u>		8.1
Zr-TLRND6	<u>ND6</u>		9
Zr-TLRND7	<u>ND7</u>	9	
Zr-TURNE2	Maxillary 2nd primary molar	<u>NE2</u>	8.2
Zr-TURNE3		<u>NE3</u>	8.8
Zr-TURNE4		<u>NE4</u>	9.2
Zr-TURNE5		<u>NE5</u>	9.6
Zr-TURNE6		<u>NE6</u>	9.9
Zr-TURNE7		<u>NE7</u>	10.2
Zr-TLRNE2		Mandibular 2nd primary molar	<u>NE2</u>
Zr-TLRNE3	<u>NE3</u>		9
Zr-TLRNE4	<u>NE4</u>		9.3
Zr-TLRNE5	<u>NE5</u>		9.8
Zr-TLRNE6	<u>NE6</u>		10.2
Zr-TLRNE7	<u>NE7</u>		10.7

Catalog No.	Applicable Dental Notation	Code	Mesiodistal Width (mm)
Zr-TULND2	Maxillary 1st primary molar	<u>ND2</u>	5.5
Zr-TULND3		<u>ND3</u>	6.4
Zr-TULND4		<u>ND4</u>	6.4
Zr-TULND5		<u>ND5</u>	6.7
Zr-TULND6		<u>ND6</u>	6.8
Zr-TULND7		<u>ND7</u>	7.3
Zr-TLLND2		Mandibular 1st primary molar	<u>ND2</u>
Zr-TLLND3	<u>ND3</u>		7.4
Zr-TLLND4	<u>ND4</u>		7.8
Zr-TLLND5	<u>ND5</u>		8.1
Zr-TLLND6	<u>ND6</u>		9
Zr-TLLND7	<u>ND7</u>	9	
Zr-TULNE2	Maxillary 2nd primary molar	<u>NE2</u>	8.2
Zr-TULNE3		<u>NE3</u>	8.8
Zr-TULNE4		<u>NE4</u>	9.2
Zr-TULNE5		<u>NE5</u>	9.6
Zr-TULNE6		<u>NE6</u>	9.9
Zr-TULNE7		<u>NE7</u>	10.2
Zr-TLLNE2		Mandibular 2nd primary molar	<u>NE2</u>
Zr-TLLNE3	<u>NE3</u>		9
Zr-TLLNE4	<u>NE4</u>		9.3
Zr-TLLNE5	<u>NE5</u>		9.8
Zr-TLLNE6	<u>NE6</u>		10.2
Zr-TLLNE7	<u>NE7</u>		10.7



COHO Biomedical Technology CO.,LTD | No.21, Da Feng St. Luzhu Dist Taoyuan City 33860 Taiwan
Tel: 886-3-3112203 | Fax: 886-3-3125626 | Email: info@zibone.com