



WHERE PRECISION MEETS PERFORMANCE

Advanced alloys for dental implants and instruments

Quality drives performance

Carpenter Technology delivers precision-engineered, tight-tolerance materials of the highest quality for dental implants and instruments. Our alloys offer superior strength, biocompatibility, wear resistance, and machinability to meet both doctor and patient goals.



TRUSTED PARTNER

Carpenter Technology has set the standard for dental, orthodontic, and surgical alloys since 1889.

QUALITY ASSURANCE

Lab-tested and patient-proven, our products meet critical requirements and are routinely manufactured to ASTM, ISO, and customer-custom specifications. Additionally, we maintain quality management systems that comply with the requirements of various international, federal, and industry quality standards.

COMPREHENSIVE SOLUTIONS

We have the largest portfolio of premium medical materials on the market, including customized alloy and product forms.

STATE-OF-THE-ART MANUFACTURING

In-house, start-to-finish production gives us precise control over the chemistry, machinability, and performance of our alloys.

Highest quality raw materials for alloys with ultra-clean microstructure

Tight dimensional tolerances and diameter uniformity for direct machining

Unprecedented end-to-end manufacturing consistency with fewer steps and scraps

BUILDING THE MATERIALS OF TOMORROW

Every application presents its own set of challenges. Carpenter Technology's metallurgists, research scientists, and engineers work in close cooperation with the dental industry's best to continually define and redefine the leading edge of materials technology. We are uniquely qualified to help you find the alloys you need for:

- Seamless dental procedures
- Application-specific implants and tools
- Faster patient recoveries
- Efficient, cost-effective manufacturing

Life-changing materials

Carpenter Technology's premium titanium and specialty alloys are used in dental applications around the world.

ALLOY	END USES	KEY PROPERTIES	AVAILABLE PRODUCT FORMS
Ti-Zure®	Implants	• Up to 50% greater tensile and fatigue strength than pure titanium • Accelerated osseointegration	 BAR ROUNDS
Ti 6Al-4V ELI	Implants	• Corrosion resistance • Biocompatibility • Fracture toughness	       BAR ROUNDS BAR SHAPES COIL POWDER ULTRABAR WIRE WIRE SHAPES
CPTi - Grade 4	Implants	• Fatigue resistance • Corrosion resistance • Biocompatibility	        BAR ROUNDS BAR SHAPES COIL INGOT PLATE ULTRABAR WIRE WIRE SHAPES
TRIMRITE®	Drills	• Corrosion resistance • Hardness and strength • Formability and machinability	     BAR ROUNDS BILLET STRIP WIRE WIRE ROD
Custom 465®	Instruments	• Corrosion resistance • Tensile strength • Toughness	      BAR FLATS BAR ROUNDS BAR SQUARES BILLET STRIP WIRE
440 stainless series (440A, 440C, 440 MOD)	Clamps, pliers, scrapers, picks	• Wear resistance • High strength and hardness • Consistent chemistry	   BAR ROUNDS STRIP WIRE



Surgical precision starts with superior materials

Carpenter Technology is a global leader in high-performance alloys for critical applications in dentistry, orthodontics, and oral surgery.



**For additional information, please
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