



Medical Applications

# Titanium Alloy Bar

## ASTM F 136(Ti-6Al-4V ELI)

FEATURES	Excellent Strength to density Ratio , Good Biocompatibility , Strong Corrosion resistance , Excellent fatigue Strength & Crack resistance
END USE	Surgical Implants , Surgical Staple & Clip , Dental Implants , Orthopedic Pin & Screws , Springs , Orthodontic Appliance

ASTM F 136	CHEMICAL COMPOSITION %									
Grade	N Max.	C Max.	H Max.	Fe Max.	O Max.	Al	V	Residual %		Ti
								each	total	
Ti-6Al-4V ELI	0.05	0.08	0.012	0.25	0.13	5.50-6.50	3.50-4.50	0.1	0.4	Bal.

ASTM F 136	MECHANICAL PROPERTIES , ANNEALED					
Grade	Tensile Strength (Rm) Min.		Yield Strength (Rp) 0.2% Min.		Elongation , 4D % Min.	Area Reduction % Min.
	ksi	MPa	ksi	MPa		
Ti-6Al-4V ELI	125	860	115	795	10	25

SIZE RANGE	Bar $\phi$ : 0.12" – 2.0" (3.0mm - 50.0mm)
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TOLERANCE	Peeled 0.8"-2.0" (20.0mm-50.0mm)	ISO h10 ( h9 )
	Ground & Polished 0.12"-0.86" (3.0mm-22.0mm)	ISO h7 ( h6 )
	<ul style="list-style-type: none"> <li>· Surface finish Ra <math>\leq 0.8\mu\text{m}</math></li> <li>· Straightness Max.0.5m/m</li> <li>· End chamfering <math>\phi &gt; 3.0\text{mm}</math></li> </ul>	

CRACK DETECTION On Request	<ul style="list-style-type: none"> <li>· Eddy current crack test according to EN 10277-1 , Tab.1 Dia.<math>\phi &lt; 2.00\text{mm}</math> class 1 Dia.<math>\phi &gt; 2.00\text{mm}</math> class 3</li> <li>· Ultrasonic Inspection (<math>\phi \geq 6\text{mm}</math>) : acc. to AMS-STD-2154 (2010-11) class AA</li> </ul>
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GRAIN SIZE	· According to ETTC2 : A1-A7
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Contact us at [info@appliedtitanium.com](mailto:info@appliedtitanium.com)  
to learn more about **ATA™ Titanium Alloy Bar\_F136**


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