Technical Datasheet AWS 163 Rev.1



STAINLESS STEEL 316 LVM

Key Features

Regarded as 'Medical Grade' stainless steel vacuum melted to achieve the extremely high levels of purity and 'cleanliness' required for surgical implants

Good mechanical properties and corrosion resistance

Better pitting and crevice corrosion resistance than 302 & 304 stainless

IMPORTANT We will manufacture to your required mechanical properties.

key advantages to you, our customer



0.025mm to 21mm (.001" to .827")





Order 3m to 3t (10 ft to 6000 Lbs)



E.M.S available



Delivery: within 3 weeks



Technical support

STAINLESS STEEL 316 LVM available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
 Spools
- Bars or lengths

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Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM F138	Regarded as 'Medical Grade' stainless steel	Medical implants
С	-	0.03	BS 7252 Pt1 COMPOSITION D ISO 5832 - 1	vacuum melted to achieve the extremely high levels of purity and 'cleanliness' required for surgical implants Good mechanical properties and corrosion resistance Better pitting and crevice corrosion resistance than 302 & 304 stainless	Machined parts
Si	-	1.00			
Mn	-	2.00	Designations		
Р	-	0.025	W.Nr. 1.4441 UNS S31673 AWS 163		
S	-	0.010			
N	-	0.10			
Cr	17.00	19.00			
Мо	2.25	3.50			
Ni	13.00	15.00			
Cu	-	0.50			
Fe BAL					

Density	8.0 g/cm ³	0.289 lb/in ³	
Melting Point	1500 °C	2730 °F	
Coefficient of Expansion	16.5 μm/m °C (20 – 100 °C)	9.2 x 10 ⁻⁶ in/in °F (70 – 212 °F)	
Modulus of Rigidity	70.3 kN/mm²	10196 ksi	
Modulus of Elasticity	187.5 kN/mm ²	27195 ksi	

Heat Treatment of Finished Parts							
Condition of supplied by Allow Wire	Туре	Temperature			Cooling		
Condition as supplied by Alloy Wire		°C	°F	Time (Hr)	Cooling		
Annealed or Spring Temper	Stress Relieve	250	480	1	Air		

Properties							
Condition	Approx. tensile stren	gth	Approx. operating temperature				
Condition	N/mm²	ksi	°C	°F			
Annealed	600 – 800	87 – 116	-200 to +300	-330 to +570			
Spring Temper	1300 – 2200	189 – 319	-200 to +300	-330 to +570			

The above tensile strength ranges are typical. If you require different please ask.

