

Titanium Grade 9 / Ti-3-2.5

UNS R56320
W.Nr 3.7194

Titanium Grade 9 is a near alpha, alpha-beta alloy. It offers much more strength than CP titanium, and unlike Ti-6-4 can be cold worked resulting in moderately high strength and good ductility. It is as weldable as the CP grades and has excellent resistance to corrosion.

Industries supplied include: architecture, medical, marine, processing & chlorate manufacturing, dimensional stable anodes, and desalination.

Nominal Composition

	Al	V	Fe	O	C	N	H	Y	Ti
min	2.50	2.00							
max	3.50	3.00	0.30	0.12	0.050	0.020	0.02	0.005	Balance

Physical Properties

	At 70°F	At 20°C
Density	0.162 lb/in ³	4.48 g/cm ³
Modulus of Elasticity (E)	15.5 x 10 ³ ksi	107 GPa
Modulus of Rigidity (G)	5.0 x 10 ³ ksi	35 GPa
Coefficient of Expansion	4.4 microinches/in.-°F (70-932°F)	7.9 μm/m-°C (20-500°C)
Electrical Resistivity	4.96 μ ohm.in	12.6 μ ohm.cm
Thermal Conductivity	52.7 Btu-in./ft. ² hr.-°F	7.6 W/m-K

Applicable Specifications

Strip and Foil	ASTM B265, AMS 4989
----------------	---------------------

Typical Mechanical Properties – Spring Applications

Condition	Heat Treatment	Tensile Strength	Suggested Operating Conditions
Annealed	1200° - 1450°F	90 ksi (621 MPa) min 109 ksi (752 MPa) typ	-300°F to 1000°F (-184°C to 540°C)

Phone: 1.888.843.2350

Elgiloy Specialty Metals -
Strip Products
1565 Fleetwood Dr.
Elgin, IL 60123 USA

WWW.ELGILOY.COM

LIMITATION OF LIABILITY AND DISCLAIMER OF WARRANTY:

The content in these data sheets is provided primarily by third-party melting mills and is provided for reference only. It is not intended for engineering or design.

Applications may be discussed, however, Elgiloy Specialty Metals does not recommend or endorse any material for any particular end use or application.

The data included in this data sheet are typical values and may vary.

Elgiloy Specialty Metals makes no representations or warranties, express or implied, as to the accuracy, completeness, condition, suitability, performance, fitness for a particular purpose, or merchantability of any information contained in any data sheet.

In no event will Elgiloy Specialty Metals be liable for any damages whatsoever arising from the use of the information included in the data sheets.