

SPECIALTY METALS

Common Name: CP Grade 7 Ti-0.15PD
CP Grade 2 with Palladium Titanium Grade 7

UNS Number: R52400

General Information: Titanium Alloy Grade 7 with 0.1% palladium is similar to Grade 2, but with improved resistance to general and localized crevice corrosion in a wide range of reducing acid environments, including chlorides, and where low pH and high temperatures above 180°F (83°C) to 500°F (260°C) are prevalent. The alloy is available as castings, wire, welded tube, pipe, plate, sheet, strip, forgings, bar, and billet.

Common Specifications:	Specification:	Product Form:
	ASME SB-265	Sheet, Strip, and Plate
	ASME SB-337	Pipe, Seamless and Welded
	ASME SB-338	Tube, Seamless and Welded
	ASME SB-348	Bar and Billet
	ASTM B265 (Grade 7)	Sheet, Strip, and Plate
	ASTM B348 (Grade 7)	Bar and Billet
	ASTM B367 (Grade 7)	Castings
	ASTM B861*	Seamless Pipe
	ASTM B862*	Welded Pipe
	AWS A5.16 (ERTi-7)	Weld Wire

* Replacing ASTM B337

Chemistry Requirements: % Maximum unless given as a range.

N	C	H	Fe	O	Pd	Residuals Each Max.	Residuals Max. Total	Ti
0.03	0.08	0.015	0.30	0.25	0.12- 0.25	0.1	0.4	Balance

Note: Chemical requirements are not consistent between specifications. Check referenced specifications.

Minimum Tensile Properties:

Condition	UTS ksi (Mpa)	0.2%YS ksi (MPA)	% El.	% RA*
As specified (shape)	50 (345)	40 (275)	20	30

Typical Tensile Properties:

Condition	UTS ksi (Mpa)	0.2%YS ksi (MPA)	% El.	% RA
As provided	70 (438)	51 (352)	28	-

Note: Typical properties are not to be utilized as a requirement, but are only listed for guidance. These properties may or may not be attainable in all circumstances.

* %Ra not required by all specifications