

Ti9

Comparable specifications

ASME SFA-5.16 / AWS A5.16: ERTi-9
EN ISO 24034: S Ti 6321 (TiAl3V2.5A)

Description and applications*

This solid titanium welding grade is very useful thanks to its resistance to pitting and erosion corrosion in flowing salt water and excellent resistance to general, crevice, pitting and stress crack corrosion. It has excellent weldability that ensure strong joints with minimal defects. It is used to weld base materials where a lower tensile strength is needed.

Main applications:

- Aerospace: production and recovery of components as turbine blades and components requiring high strength.
- Oil and gas industry given its excellent corrosion resistance it is suitable to be used when building or recovering pipes for seawater transport.
- Geothermal: this grade is used to build heat exchangers in geothermal exploitation units specifically for system exposed to high salinity brines.
- Water treatment industry: Grade 9, is used to produce and maintain water purifier implants components such as pressure vessels for reverse osmosis units.

Weldable base materials*

TiAl3V2.5A, Titanium alloys.

* Illustrative, not-exhaustive list

All-weld metal mech. properties*

Tensile strength (Rm): ≥ 620 N/mm² Yield Strength (Rp_{0.2}): ≥ 480 N/mm²
Elongation (A5d): $\geq 15\%$

* For reference only values

Chemical composition*

* For reference only values

C	O	N	H	Fe	Al	V	Y	Ti
max	0.06	max	max	max	2.50	2.00	max	rem.
0.03	0.12	0.012	0.005	0.20	3.50	3.00	0.005	

Standard packaging data*

Welding process	Product type	Ø mm (inches)	Packing type
GMAW **	filler wire	0.80 - 1.20 (0.030 - 0.047)	spools BS300 / D300
GTAW **	filler rod (1000 mm)	1.60 - 4.00 (1/16 - 5/32)	cardboard boxes / tubes

* Other sizes and packing types are available upon request

** GMAW: gas metal arc welding; GTAW: gas tungsten arc welding

Marking

Each filler rod for GTAW welding is durably marked with an identification traceable to the unique product type. Welding filler materials wound on spools or in coils are durably marked on the coil or spool with an identification traceable to the unique product type.

The outside of each unit package is suitably labelled with at minimum the following data: grade, diameter, heat, lot no., classifications.

Customized labels are available upon request.

Lot classification

All our productions fulfil the **Class S3** requirements acc. to EN ISO 14344.