TECHNICAL DATA SHEET
TITANIUM ALLOY FILLER METAL

TI2

Comparable specifications

ASME SFA-5.16 / AWS A5.16: ERTi-2
EN ISO 24034: S Ti 0120 (Ti99,6)
ASTM 863: UNS R50400
Material Nr.: 3.7035

Description and applications*

* *Illustrative, not-exhaustive list*

This solid titanium welding wire offers a sound combination of mechanical strength and corrosion resistance, making it a preferred choice in many applications, above all where high temperature resistance and creep resistance are required. It offers excellent weldability: the weld deposit is ductile and provides excellent corrosion resistance in highly oxidizing and mildly reducing environments.

It is similar to Titanium Grade 1, but with stronger ductility and formability: on a general basis, it is recommended where ductility is more important than joint strength.

Main applications for this grade can be:

- applications in the aircraft industry, where tensile strength and weight ratios are very critical;
- cryogenic and petrochemical applications, such as chemical process heat exchangers;
- pressure vessels and piping systems;
- pulp bleaching systems;
- electrochemical and chemical storage tanks;
- hydrocarbon / desalination processing.

Weldable base materials*

* *Illustrative, not-exhaustive list*

Pure titanium and titanium alloys with similar chemical composition;
Titanium grades 1-4; UNS R50400H.

All-weld metal mech. properties*

* *For reference only values*

Tensile strength (Rm): ≥ 345 N/mm^2 **Yield Strength ($Rp_{0.2}$):** ≥ 275 N/mm^2
Elongation (A5d): ≥ 20%

Chemical composition*

* *For reference only values*

C	O	N	H	Fe	Ti
max	0.08	max	max	max	rem.
0.03	0.16	0.015	0.008	0.12	

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 mmm)	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.

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