

Need Metal? We get it! Titanium Welding Wire

ER Ti-1

Category BTWI-BPTW Solid wires

Type Solid Titanium welding wire Grade 1 (purest grade)

Applications ERTi-1. Grade 1 is the lowest strength unalloyed (or Commercially Pure — CP) grade. Grade 1 is used in applications where ductility is paramount, such as explosive cladding, loose linings, expanded metal, and deep drawing applications. It is also used in electrolytic applications like coated anode substrates for production of chlorine and sodium chlorate.

Properties The weld deposit is ductile and offers excellent corrosion resistance in oxidizing environments. The purity and corrosion resistance makes the alloy a preferred choice in many applications to prevent or solve problems. The wire is cleaned in a very special way to obtain porosity free and a ductile weld deposits.

Classification AWS A 5.16: ER Ti 1
UNS: R50100

Suitable for ER Ti-1 is the purest grade and is suitable for welding Titanium grade 1, 2, 3 and 4. With the restriction that the mechanical properties are much less than Grade 2, 3 and 4. The weld deposit is ductile and offers excellent corrosion resistance in oxidizing environments. This alloy finds his applications in chemical industry and offers excellent Weldability.

Welding positions:



Weld deposit weight %

C	O	N	H	Fe	Al	V	Pd
< 0.03	0.03 - 0.10	< 0.012	< 0.005	< 0.08	--	--	--

Mechanical properties

Heat Treatment	RPO,2 (N/mm ²)	Rm (N/mm ²)	A5 (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
as welded	250	320	--	--	--	--	--

welding parameters / packing

Welding Parameters			Packing
Dia. (mm)	Length (mm)	Current (A)	kg / tube
1.0	1000		5
1.2	1000		5
1.6	1000		5
2.0	1000		5
2.4	1000		5
3.0	1000		5
3.2	1000		5
3.5	1000		5
4.0	1000		5
4.5	1000		5
5.0	1000		5
6.0	1000		5

Note: Also available as spooled wire :0.8 mm, 1.0 mm and 1.2 mm (D-100 / D-200 / D-300)