

ER Ti-12

CATEGORY GMAW-GTAW Solid wires

TYPE Solid drawn Titanium Grade 12 welding wire .

APPLICATIONS This alloy finds his applications in chemical industry and offers excellent Weldability. Often recommended for pressure vessels and piping for its superior strength alone.

PROPERTIES **ER Ti-12.** Grade 12 (Ti 0.8Ni0.3Mo) is an intermediate strength grade originally developed to provide enhanced crevice-corrosion resistance in high temperature brines, but at lower cost than Grade 7. The improved performance is believed to be the result of Ni++ and Mo++ ions that alter the surface electrochemistry of the material in the crevice or under a surface deposit. Grade 12 has better elevated temperature properties than Grade 2 or 3 and is sometimes specified for pressure vessels or piping for its superior strength alone.

CLASSIFICATION

AWS	A 5.16: ER Ti 12
	UNS: R53401
EN ISO	24034: STi-3401
DIN: W.Nr.	3.7105
DIN	1737:

SUITABLE FOR Titanium grade 12, Grade 7, Grade 2 and Grade 3

APPROVALS CE approved

WELDING POSITIONS:



ALL WELD METAL WEIGHT %

C	O	N	H	Fe	Al	V	Pd	Mo	Ni
<0.03	0.08-0.16	<0.015	<0.008	<0.15				0.2-0.4	0.6-0.9

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
as welded	345	483					

WELDING PARAMETERS / PACKING

D (mm)	Welding Parameters		Packing kg / tube
	Length (mm)	Current (A)	
1,2	1000		5
1.6	1000		5
2.0	1000		5
2.4	1000		5

REDRYING TEMPERATURE not required

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