

TGA-52

AWS A5.18 ER70S-2
JIS Z 3316 W 49 AP 3U 2

Characteristics and Applications :

TGA-52 is a multiple deoxidized mild steel welding wire for GTAW welding applications. In addition to manganese and silicon, it picks aluminum, titanium and zirconium as deoxidizers which provide sound welds in semi-killed and rimmed steels and is suitable for welding steels that have a rusty or dirty surface.

Notes on usage :

1. 100% Argon shielding gas with 99.997% high purity is recommended and the flow rate must be properly controlled. The flow rate is recommended 7-12l/min when arc current is 100-200Amp and it goes up to 12-15l/min when arc current rises to 200-300Amp.
2. Trailer Shield is required to ensure the weld pool completely shielded by inert gas until solidification is complete and no porosity problem.
3. Select right gas cup size and employ proper stick out of tungsten electrode.
4. In order to have a very clean weld pool, keep the weld plate free from dirt, rust, paint and any other atmospheric contamination.

Typical chemical composition of wire (wt%):

C	Mn	Si	P	S	Ni	Cr	Mo	V	Al	Ti	Zr	Cu
0.06	1.25	0.5	0.01	0.008	0.03	0.05	0.07	0.02	0.14	0.15	0.08	0.048

Typical mechanical properties of all weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -30°C (-20°F)
490(71)	550(80)	29	300(221)

Sizes available:

Diameter (mm)	1.6	2.0	2.4	3.2
Length (mm)	915			

* The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and TienTai Electrode Co., Ltd. expressly disclaims any liability incurred from any reliance thereon. Typical data is obtained when welded and tested in accordance with AWS specification. Other tests and procedures may produce different results. No data is to be construed as recommendation for any welding condition or technique not controlled by TienTai Electrode Co., Ltd.