

# TGA-50

AWS A5.18 ER70S-G  
JIS Z3316 W 49 A 3U 0

## Characteristics and Applications:

It is designed for welding of mild steel and 490N/mm<sup>2</sup> grade steel. TGA-50 is widely applied to butt or fillet welding of high pressure piping for shipbuilding, petro chemistry and nuclear power plant, etc.. TGA-50 is an all-position welding rod for TIG welding. Especially suitable for root pass of pipe welding by DC(-) polarity.

## Notes on usage:

1. Use 99.997% purity of Ar as shielding gas with current range around 100~200 Amp while gas flow rate is 7~12 l/min; and around 200~300 Amp while gas flow rate is around 12~15 l/min.
2. Clean the surface of base metal to prevent contamination.

## Typical chemical composition of wire (wt%)

C	Mn	Si	P	S	Cu	Ti
0.07	1.50	0.90	0.02	0.01	0.030	0.015

## Typical mechanical properties of weld metal

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-1bf) -30°C (-20°F)
440(64)	550(80)	33	200(162)

## Sizes available

Diameter (mm)	1.6	2.0	2.4	3.2	4.0
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.

SOLID WIRES