

TGA-53

AWS A5.18 ER70S-3

Characteristics and Applications :

TGA-53 is designed for welding mild steel and 490N/mm² grade steel. The product is often applied to butt or fillet welding of high pressure piping for shipbuilding and general construction. As an all-position welding rod for TIG welding, it is especially suitable for the root pass of pipe welding. Use DC(-) polarity.

Notes on usage :

1. 100% Argon shielding gas with 99.997% high purity is recommended and the flow rate must be properly controlled. The recommended flow rate is 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. Select right gas cup size and employ proper stick out of tungsten electrode.
3. To obtain a very clean weld pool, keep the weld plate free from dirt, rust, paint and any other atmospheric contamination.
4. Trailer Shield is required to ensure the weld pool completely shielded until solidification is complete and no porosity problem.

Typical chemical composition of wire (wt%):

C	Mn	Si	P	S	Ni	Cr	V	Cu
0.07	1.23	0.66	0.02	0.02	0.01	0.025	0.005	0.02

Typical mechanical properties of all weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -20°C (0°F)	PWHT
449(65)	534(77)	33	140(103)	AW

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.